ORDER NO. VM0403021C3

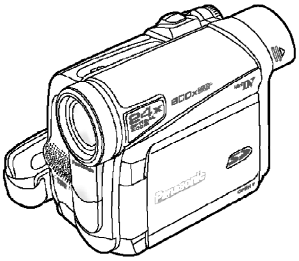
Service Manual

Digital Video Camcorder

PV-GS9PL / PV-GS12PL / PV-GS15PL

Colours

(S)..................Silver Type



PbF
Solder Lead free

SPECIFICATIONS

ITEM	SPECIFICATION	1	2	3
Digital Camcorder	Power Source: DC 7.8/7.2V Power Consumption: 4.5 W (Recording)	○	○	○
AC Adaptor	Power Source: 110/120/220/240 V AC, 50/60 Hz Power Consumption: 18 W DC Output: DC 7.8 V, 1.4 A (Camcorder Operation) DC 8.4 V, 1.2 A (Battery Charging)	○	○	○
Recording Format	Mini DV (Consumer-use Digital Video SD Format)	○	○	○
Tape Used	6.35 mm digital video tape	○	○	○
Recording/ Playback Time	SP: 80 min.; LP: 120 min. (with DVM80)	○	○	○
Video Recording System	Digital Component	○	○	○
Television System	EIA Standard (525 lines, 60 fields) NTSC color signal	○	○	○
Audio Recording System	PCM Digital Recording 16 bit (48 kHz/2ch), 12 bit (32 kHz/4ch)	○	○	○
Image Sensor	1/6-inch CCD Image Sensor	○	○	○
Lens	Auto Iris, F1.8, Focal length; 2.1 mm - 42 mm 2.1 mm - 50.4 mm Macro (Full Range AF)	○ ○ — ○	○ ○ — ○	○ — ○ ○
Filter Diameter	27 mm	○	○	○
Zoom	20:1 Power Zoom 24:1 Power Zoom	○ —	○ —	— ○
Monitor	2.5-inch Liquid Crystal Display	○	○	○
Viewfinder	Electronic Viewfinder Color Electronic Viewfinder	○ —	○ —	— ○
Microphone	Stereo	○	○	○
Speaker	1 round speaker 20 mm	○	○	○

ITEM	SPECIFICATION	1	2	3
Standard Illumination	1,400 lx	○	○	○
Minimum Required Illumination	1 lx (MagicPix Mode)	○	○	○
Output Level	Video Output Level: 1.0 Vp-p, 75 ohm S-Video Output Level: Y Output: 1.0 Vp-p, 75 ohm C Output: 0.286 Vp-p, 75 ohm Audio Output Level (Line): 316 mV, 600 ohm	○ — ○	○ — ○	○ ○ ○
Mic Input	Mic sensitivity -50 dB (0 dB=1 V/Pa, 1 kHz) (Stereo mini jack)	—	—	○
USB	Card reader/writer function, USB 2.0 compliant (max. 12 Mbps) No copyright protection support	○	○	○
Digital Interface	DV Input/Output Jack (IEEE1394, 4-pin)	○	○	○
Card Memory Functions	Recording Media: MultiMediaCard (4 MB/8 MB/16 MB) SD Memory Card (8 MB/16 MB/32 MB/64 MB/128 MB/256 MB/512 MB) Still picture recording file format: JPEG (Design rule for Camera File system, based on Exif 2.2 standard), DPOF corresponding Still Image Size: 640 X 480 pixels (VGA)	—	○	○
WEB Camera	Compression: Motion JPEG Image Size: 320 X 240 pixels (QVGA)	—	○	○
Operating Condition	0 °C~40 °C (32 °F~104 °F) (Temperature) 10 %~75 % (Humidity)	○	○	○
Weight	Digital Camcorder: 0.45 kg (0.99 lbs.) AC Adaptor: 0.16 kg (0.35 lbs.)	○	○	○
Dimensions	Digital Camcorder: 112 mm x 87 mm x 69 mm (W x H x D) (4-7/16 inch x 3-7/16 inch x 2-11/16 inch) (W x H x D) AC Adaptor: 70 mm x 45 mm x 115 mm (W x H x D) (2-3/4 inch x 1-3/4 inch x 4-1/2 inch) (W x H x D)	○	○	○
Solder	**This model uses lead free solder (PbF).**	○	○	○

1. PV-GS9PL
2. PV-GS12PL
3. PV-GS15PL

Weight and dimensions shown are approximate.
Designs and specifications are subject to change without notice.

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⚠ **WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. **IMPORTANT SAFETY NOTICE**
   There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Layout, Exploded Views and Replacement Parts List. It is essentialthat these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.
2. **An Isolation Transformer should always be used during the servicing of AC Adaptor whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personalinjury from electrical shocks. It will also protect AC Adaptor from being damaged by accidental shorting that may occur during servicing.**
3. **When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.**
4. **After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.**
5. **After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.**

LEAKAGE CURRENT COLD CHECK

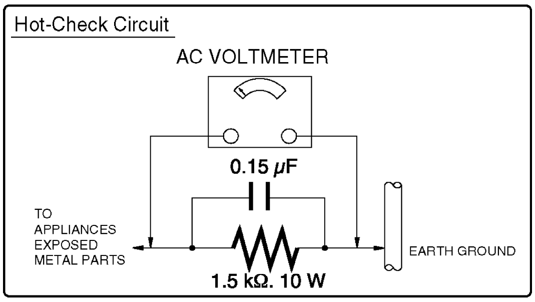
1. **Unplug the AC cord and connect a jumper between the two prongs on the plug.**

2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to thechassis, the reading should be between 1 M Ω and 5.2 M Ω . When the exposed metal does not have a return path to the chassis, the reading must be infinity.

LEAKAGE CURRENT HOT CHECK
(See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5 k Ω , 10 W resistor, in parallel with a 0.15 μ F capacitor, between each exposed metallic part on the set and a good earth ground, as shown in Figure 1.
3. Use an AC voltmeter, with 1 k Ω /V or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 V RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 mA. In case a measurement is outside of thelimits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

Figure. 1



2. PREVENTION OF ELECTRO STATIC DISCHARGE

(ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistorsand semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. **Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap,which should be removed for potential shock reasons prior to applying power to the unit under test.**
2. **After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.**
3. **Use only a grounded-tip soldering iron to solder or unsolder ES devices.**
4. **Use only an antistatic solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate electrical charge sufficient to damage ES devices.**
5. **Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.**
6. **Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparableconductive material).**
7. **Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.**

   CAUTION :

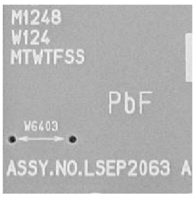
   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD)sufficient to damage an ES device).

3. ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



Printed case

CAUTION:

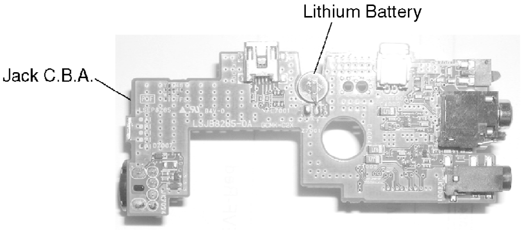
- Pb free solder has a higher melting point than standard solder;
  Typically the melting point is 50 °F - 70 °F (30 °C - 40 °C) higher.
  Please use a soldering iron with temperature control and adjust it to 700 °F±20 °F (370 °C± 10 °C).
  In case of using high temperature soldering iron, please be carefull not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100 °F/600 °C).
- All products with the printed circuit board with PbF stamp or printing must be serviced with lead free solder.
  When soldering or unsoldering, completely remove all of the solder from the pins or solder area,
  and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

Recommendations

Recommended lead free solder composition is Sn96.5 Ag3.0 Cu0.5.

4. HOW TO REPLACE THE LITHIUM BATTERY

Remove the Jack C.B.A. (Refer to “ DISASSEMBLY ASSEMBLY PROCEDURES.”)
Unsolder the Lithium Battery “ML-621S/F9D” and then replace the new one.



NOTE:

This Lithium battery is a critical component. (Type No.: ML-621S/F9D Manufactured by Panasonic.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in equipment designed specifically for its use.
Replacement batteries must be of the same type and manufacture.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.

Do not attempt to re-charge the old battery or re-use it for any other purpose.
It should be disposed of in waste products destined for burial rather than incineration.

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

PRECAUTION
Le fait de remplacer incorrectement la pile peut présenter des risques d'explosion.
Remplacer la pile uniquement par une pile identique ou de type équivalent recommandée par le fabricant. Se débarrasser des piles usagées conformément aux instructions du fabricant.

VORSICHT
Bei einer falsch eingesetzten Batterie besteht Explosionsgefahr. Nur mit einer vom Hersteller empfohlenen Batterie vom gleichen Typ ersetzen.
Verbrauchte Batterien beim Fachhändler oder einer Sammelstelle für Sonderstoffe abliefern.

VARNING
Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens instruktion.

ADVARSEL!
Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning má kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

VAROITUS
Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

5. HOW TO RECYCLE THE LITHIUM BATTERY

U.S.A. CONSUMERS: ATTENTION:
A lithium ion/polymer battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

ATTENTION:
A lithium ion/polymer battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

6. SERVICE NOTES (PLEASE READ)

6.1. SERVICE NOTES

6.1.1. EXTENSION CABLES FOR SERVICE POSITION

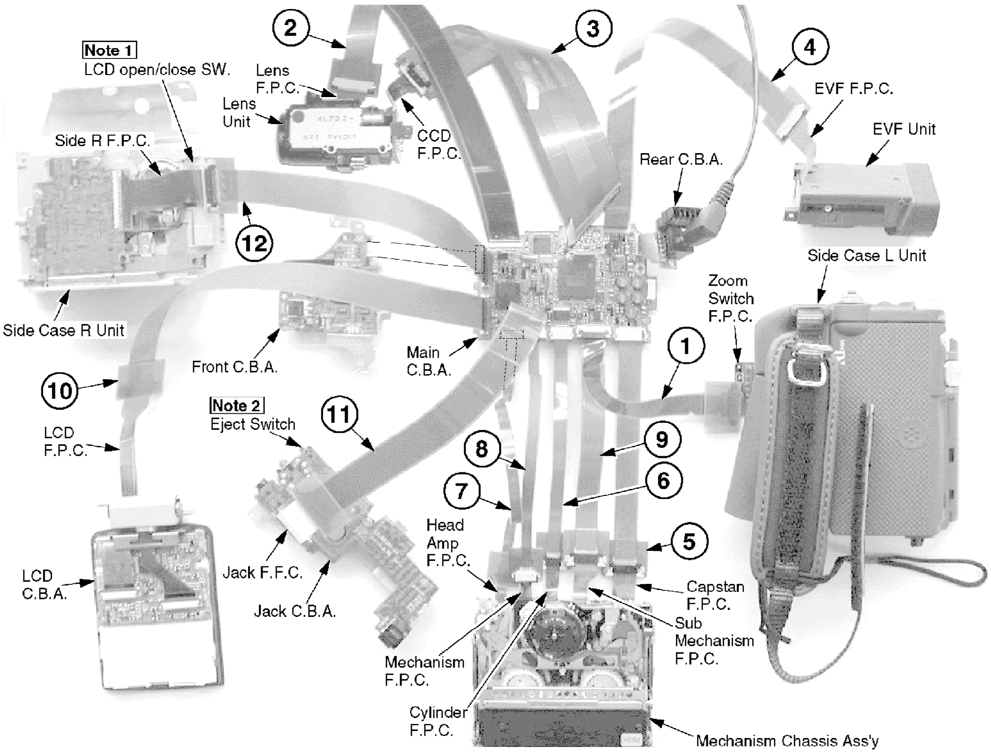
Using the following Extension Cables, place the unit as shown for check and service.

NO.	PART NUMBER	PART NAME	CONNECTION
①	LSUA0017	18Pin Extension Cable	FP10 on Main C.B.A. ~ Zoom Switch F.P.C. of Side Case L Unit
②	VUVS0012	22Pin Extension Cable	FP701 on Main C.B.A. ~ Lens F.P.C. on Lens Unit
③	VFKW0124A	14Pin Extension Cable	FP301 on Main C.B.A. ~ CCD F.P.C. on Lens Unit
④	VUVS0012	22Pin Extension Cable	FP9 on Main C.B.A. ~ EVF F.P.C. of EVF Unit
⑤	LSUA0017	18Pin Extension Cable	FP4 on Main C.B.A. ~ Capstan F.P.C. on Mechanism Chassis Ass'y
⑥	LSUA0016	10Pin Extension Cable	FP3 on Main C.B.A. ~ Cylinder F.P.C. on Mechanism Chassis Ass'y
⑦	VUVS0019	8Pin Extension Cable	FP5 on Main C.B.A. ~ Head Amp F.P.C. on Mechanism Chassis Ass'y
⑧	VUVS0019	8Pin Extension Cable	FP1 on Main C.B.A. ~ Mechanism F.P.C. on Mechanism Chassis Ass'y
⑨	LSUA0017	18Pin Extension Cable	FP2 on Main C.B.A. ~ Sub Mechanism F.P.C. on Mechanism Chassis Ass'y
⑩	LSUA0021	26Pin Extension Cable	FP8 on Main C.B.A. ~ LCD F.P.C. of Shaft Case Unit
⑪	VUVS0015	28Pin Extension Cable	FP7 on Main C.B.A. ~ Jack F.F.C. of Jack C.B.A.
⑫	LSUA0021	26Pin Extension Cable	FP11 on Main C.B.A. ~ Side R F.P.C. of Side Case R Unit **(For model with SD Slot)**
⑫	VUVS0007	12Pin Extension Cable	FP12 on Main C.B.A. ~ Side R F.P.C. of Side Case R Unit **(For model without SD Slot)**

Note :

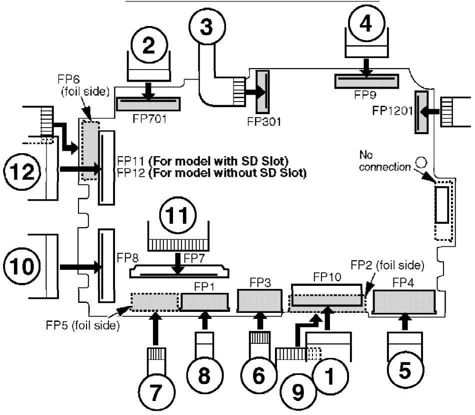
1. **The LCD open/close SW. is for changing between LCD Display or EVF Display. When turning on EVF Display, place some paper or tape, etc. on LCD open/close SW. so that this SW. stays ON.**
2. **To eject the Mechanism, hold down the Eject Switch on the Jack C.B.A. for a short time.**
3. **Use a grounded ESD wrist strap while disassembling the Lens portion.**
4. **Connect the F.P.C.s to the connectors, verifying the direction of F.P.C as shown.**
5. **Use extreme care when unplugging or plugging in connectors.**

Fig. 1


Note 1
LCD open/close SW.
Lens F.P.C.
Lens Unit
CCD F.P.C.
Side R F.P.C.
Side Case R Unit
Front C.B.A.
Main C.B.A.
Rear C.B.A.
EVF F.P.C.
EVF Unit
Side Case L Unit
Zoom Switch F.P.C.
LCD F.P.C.
Note 2
Eject Switch
LCD C.B.A.
Jack F.F.C.
Jack C.B.A.
Head Amp F.P.C.
Capstan F.P.C.
Sub Mechanism F.P.C.
Mechanism F.P.C.
Cylinder F.P.C.
Mechanism Chassis Ass'y
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫

Non ZIF connectors are on the Main C.B.A. as shown in gray.

Direction of F.P.C.s connection

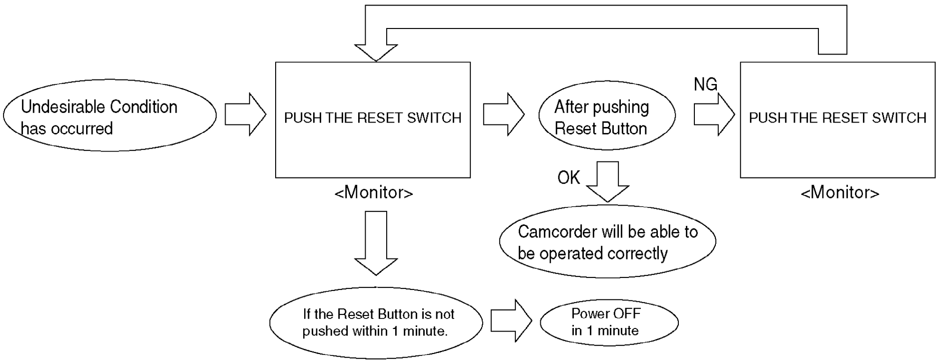

②
③
④
FP6 (foil side)
FP701
FP301
FP9
FP1201
FP11 (For model with SD Slot)
FP12 (For model without SD Slot)
No connection
⑫
⑪
⑩
FP8
FP7
FP1
FP3
FP10
FP2 (foil side)
FP4
FP5 (foil side)
⑦
⑧
⑥
⑨
①
⑤

Main C.B.A. (component side)

6.1.2. ERROR DISPLAY

"PUSH THE RESET SWITCH" is displayed automatically on the EVF or the LCD Monitor when an undesirable condition has occurred.

Fig. 2


Undesirable Condition has occurred
PUSH THE RESET SWITCH
<Monitor>
After pushing Reset Button
NG
PUSH THE RESET SWITCH
<Monitor>
OK
Camcorder will be able to be operated correctly
If the Reset Button is not pushed within 1 minute.
Power OFF in 1 minute

Note:

When "PUSH THE RESET SWITCH" is displayed repeatedly, repair is required. Check the Error Code which is listed in the Service Menu.

6.1.3. SERVICE MENU

This function displays the following items in the Service Menu.

- ***1...Cylinder elapsed time reset**

  After replacing the Cylinder Unit, clear the Cylinder elapsed time to 0.

  Press the STILL or the FADE button to select this item. Then, press the ENTER button.

- ***2...Cylinder elapsed time**

  This item displays the Cylinder elapsed time (in Base 16).

  Calculation method of the Cylinder elapsed time:

(For example) If "0001234F" is displayed, 0001234F (in Base 16) = 74574 (in Base 10)

$74574 \times \underbrace{4.3\ (\text{seconds})}_{\text{fixed value}} = 320672.5\ (\text{seconds})$

320672.5 / 3600 (seconds) = 89.1 (hours)

- ***3...Mechanism lock code record**

  The current lock code, the last lock code and the lock code before last are displayed.

- ***4...Lens motor lock code record**

  The current lock code, the last lock code and the lock code before last are displayed.

To enter the Service Menu:

Press the MENU button on the operation panel. Then, press and hold the BACKLIGHT, the REW- and the PHOTOSHOT buttons for more than 3 seconds with no SD Card inserted. The Service Menu will be displayed.

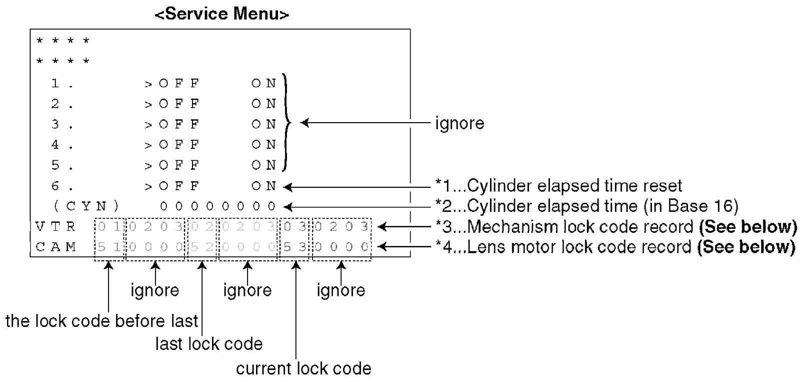
Note:

1. When an Error Display "PUSH THE RESET SWITCH" is displayed

on the monitor, it is not necessary to push the MENU button to enter the Service Menu.

2. Do not operate items 1 ~5 in the Service Menu.

Fig. 3



<Service Menu>
ignore
*1...Cylinder elapsed time reset
*2...Cylinder elapsed time (in Base 16)
*3...Mechanism lock code record (See below)
*4...Lens motor lock code record (See below)
ignore
ignore
ignore
the lock code before last
last lock code
current lock code

```
****
****
 1.      >OFF     ON
 2.      >OFF     ON
 3.      >OFF     ON
 4.      >OFF     ON
 5.      >OFF     ON
 6.      >OFF     ON
 (CYN)    00000000
VTR  01 0203 02 0203 03 0203
CAM  51 0000 52 0000 53 0000
```

Mechanism & Lens motor lock code

Error Code	Explanation of cause
01	T Reel Lock
02	S Reel Lock
03	Tape Unloading (direction) Lock
04	Tape Loading (direction) Lock
05	Cylinder Lock
51	Zoom Motor Lock
52	Focus Motor Lock

To exit the Service Menu:

Unplug the AC Cord.

Note:

After repairing, to delete all lock code, press and hold the BACKLIGHT, the REW- and the REC/PAUSE buttons for more than 3 seconds in power on condition (with no SD Card inserted). Otherwise, new lock code will not be recorded correctly.

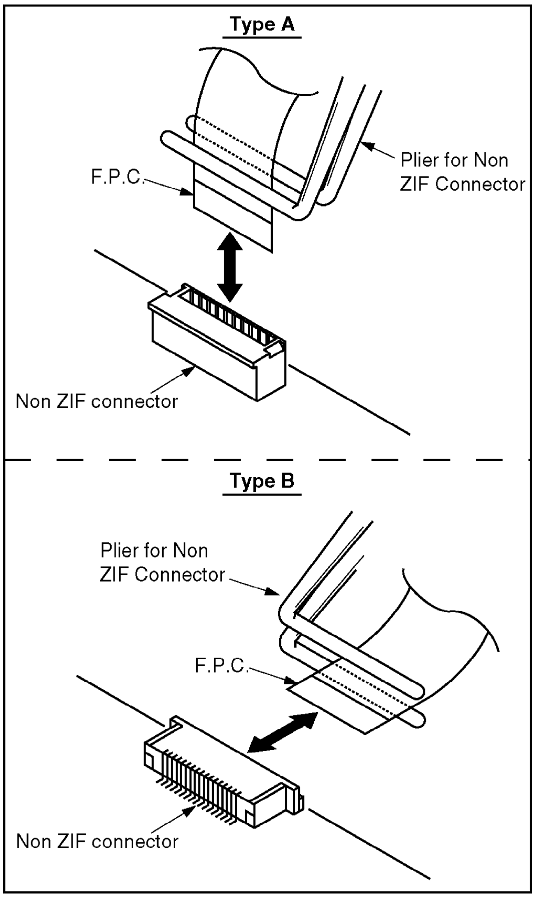
6.1.4. REMOVAL / INSTALLATION OF F.P.C. FROM NON ZIF (Zero Insertion Force) CONNECTOR

Removal/Installation of F.P.C. from the Non ZIF (Zero Insertion Force) connector:

1. The Non ZIF connectors and the ZIF connectors are used on the unit. And there are 2 types (Type A, Type B) of Non ZIF connectors.

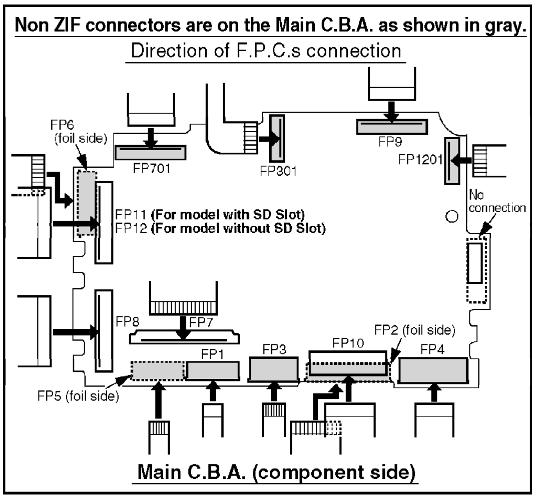
2. To remove the F.P.C. from the Non ZIF connector, use the Plier for Non ZIF Connector (LSVQ0028) to pull out the F.P.C. as shown. The same Plier for Non ZIF Connector (LSVQ0028) should also be used to install the F.P.C. to the Non ZIF Connector.

Fig. 4-1


Type A
F.P.C.
Plier for Non ZIF Connector
Non ZIF connector
Type B
Plier for Non ZIF Connector
F.P.C.
Non ZIF connector

3. Connect the F.P.C.s to the Non ZIF connectors, verifying the direction of F.P.C as shown.

Fig. 4-2


Non ZIF connectors are on the Main C.B.A. as shown in gray.
Direction of F.P.C.s connection
FP6 (foil side)
FP701
FP301
FP9
FP1201
No connection
FP11 (For model with SD Slot)
FP12 (For model without SD Slot)
FP8
FP7
FP2 (foil side)
FP10
FP1
FP3
FP4
FP5 (foil side)
Main C.B.A. (component side)

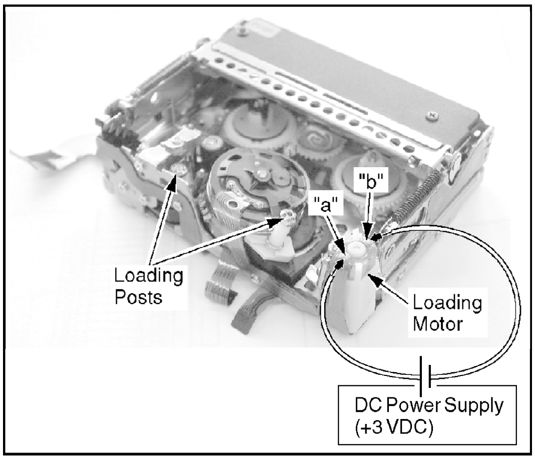
6.1.5. METHOD FOR LOADING / UNLOADING OF MECHANISM

CAUTION:

If loading does not start after DC Power Supply is applied, DO NOT continue to apply DC Power.

Apply +3 VDC Power Supply to the Loading Motor terminals.
Loading:
DC (-) to Portion "a," DC (+) to Portion "b"
Unloading:
DC (+) to Portion "a," DC (-) to Portion "b"

Fig. 5


"b"
"a"
Loading Posts
Loading Motor
DC Power Supply (+3 VDC)

6.1.6. HOW TO REMOVE A JAMMED TAPE

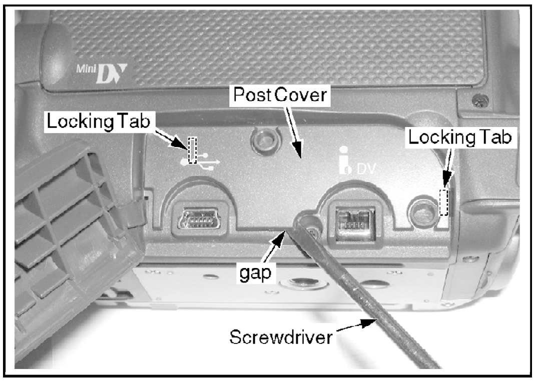
Remove a jammed tape in Electrical Method as follows:

1. **Open the Jack Cover. Then, insert a flat headed (-) screwdriver or similar object into the gap of the Post Cover, and remove it while releasing the 2 Locking Tabs.**

   Note:

   Be careful not to damage the Locking Tabs on the Post Cover.

Fig. 6-1


Mini DV
Post Cover
Locking Tab
Locking Tab
gap
Screwdriver

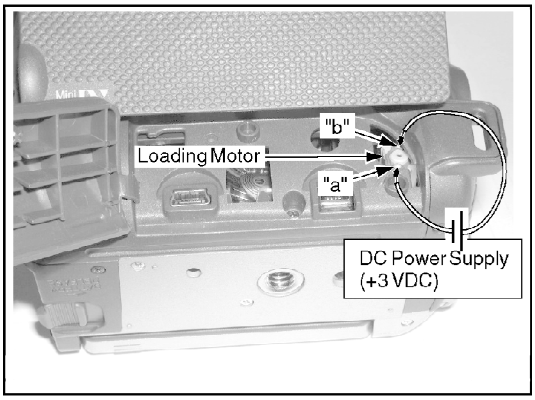
2. **Open the Cassette Cover by hand.**
3. **Apply +3 V DC Power Supply to Portions "a" and "b" on the Loading Motor.**

   Note:

   DO NOT let the Cassette Up Unit eject when pushing down the Cassette Cover. If the Cassette Up Unit is in the up position, the

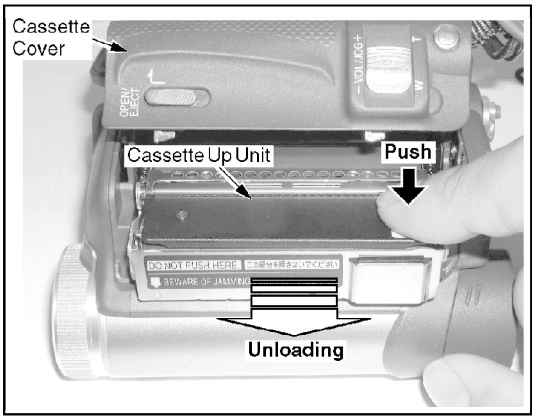
cassette tape may be damaged.

Fig. 6-2


"b"
Loading Motor
"a"
DC Power Supply
(+3 VDC)

4. **When the Mechanism is in EJECT position (snapping sound), cut the Power Supply immediately.**

Fig. 6-3


Cassette Cover
OPEN/EJECT
—VOL/JOG+
Cassette Up Unit
Push
DO NOT PUSH HERE
BEWARE OF JAMMING
Unloading

5. **Move up the Cassette Up Unit carefully by hand so as not to damage the Mechanism or tape due to tape slack.**
6. **Take out the cassette tape from the Cassette Up Unit carefully.**
7. **Remove the tape slack by rotating the Take-up Reel Gear of the cassette tape.**
8. **Connect the Power or Battery to set the Mechanism to STOP Position.**

6.1.7. EEPROM DATA

CAUTION:

Be sure to save the EEPROM data using PC-EVR Adjustment Program before service and adjustment in order to make sure to avoid an accidental data loss, etc. using PC-EVR Adjustment Program by first.

EEPROM IC

C.B.A.	EEPROM IC Ref. No.
Main C.B.A.	IC6002

6.1.8. SIGNAL DESCRIPTION ON INTERFACE BOARD FOR ELECTRICAL ADJUSTMENT (LSUP0007)

A signal check can be performed using the Interface Board.

Fig. 7-1

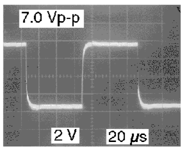
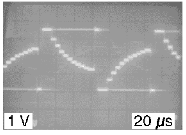
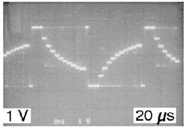
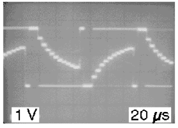
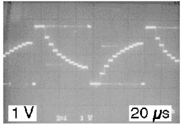
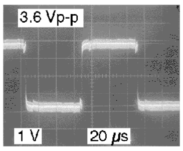
Pin No.	Signal Name	Description	Waveforms
TP101	EEPROM DAT	To monitor LCD VCOM signal at Pin 10 of FP8002 on LCD C.B.A. This test point is used for "LCD Horizontal free running adjustment" and "LCD VCOM level adjustment."	 Camera Mode (Built in 10 step)
TP102	EEPROM CLK	Not used	---------------
TP103	EEPROM VDD	Not used	---------------
TP104	-----	Not used	---------------
TP105	EVF CR	Not used	---------------
TP106	EVF CB	Not used	---------------
TP107	MON PLL	Not used	---------------
TP108	MON VCOM	Not used	---------------
TP109	V850 VDD	Not used	---------------
TP110	V850 VPP	Not used	---------------
TP111	V850 SBO	Not used	---------------
TP112	V850 SBI	Not used	---------------
TP113	V850 SCK	Not used	---------------
TP114	M103 MMOD0	**(For model with Color EVF)** To monitor EVF red signal at Pin 29 of IC901 on Main C.B.A. This test point is used for "EVF Sub Bright adjustment."	2.0 V (1st step - 1st step)  Camera Mode (Built in 10 step)
TP115	M103 MMOD1	**(For model with Color EVF)** To monitor EVF green signal at Pin 28 of IC901 on Main C.B.A. **(For model with Monochrome EVF)** To monitor EVF luminance at Pin 28 of IC901 on Main C.B.A. This test point is used for "EVF Sub Bright adjustment" and "EVF Contrast/Bright adjustment."	**(Color EVF)** 2.05 V (1st step - 1st step)  Camera Mode (Built in 10 step) **(Monochrome EVF)** 2.3 V (1st step - 1st step)  Camera Mode (Built in 10 step)
TP116	M103 VPP	**(For model with Color EVF)** To monitor EVF blue signal at Pin 27 of IC901 on Main C.B.A. This test point is used for "EVF Sub Bright adjustment."	2.15 V (1st step - 1st step)  Camera Mode (Built in 10 step)
TP117	M103 EXMOD1	To monitor EVF VCOM signal at Pin 21 of IC901 on Main C.B.A.	 Camera Mode (Color Bar Chart)
TP118	EVF HD	Not used	---------------
TP119	EVF R	Not used	---------------
TP120	EVF B	Not used	---------------

Fig. 7-2

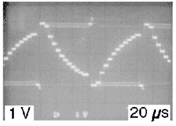
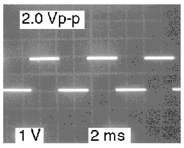
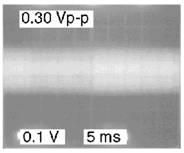
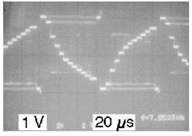
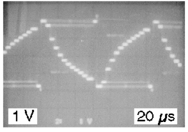
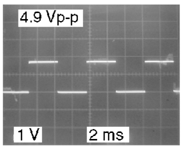
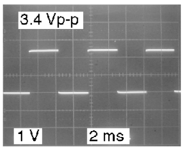
Pin No.	Signal Name	Description	Waveforms
TP121	EVF G	To monitor LCD green signal at Pin 6 of IC8001 on LCD C.B.A. This test point is used for "LCD Pedestal level adjustment" and "LCD Sub Pedestal level adjustment."	3.5 V (0 step - 0 step)  Camera Mode (Built in 10 step)
TP122	HID	To monitor HID signal at Pin 44 of IC3201 on Main C.B.A. This test point is used for "VCR PG shifter adjustment.	 Rec/PB Mode
TP123	ENVELOPE	To monitor Envelope signal at Pin 41 of IC5001 on Main C.B.A.	 PB Mode (SP)
TP124	SPA	Not used	---------------
TP125	ATFI	To monitor ATF signal at Pin 23 of IC3201 on Main C.B.A.	---------------
TP126	M103 REG3	Not used	---------------
TP127	DGND	Grounding terminal	---------------
TP128	EEPROM CS	Not used	---------------
TP129	CAMF VDD	Not used	---------------
TP130	CAMF VPP	Not used	---------------
TP131	MON R	Not used	---------------
TP132	MON G	Not used	---------------
TP133	MON B	Not used	---------------
TP134	CAM AGND	Grounding terminal	---------------
TP135	(CAP FG)	Not used	---------------
TP136	AGC OUT	Not used	---------------
TP137	(M103 PON)	Not used	---------------
TP138	AD IN	Not used	---------------
TP139	AD IN2	Not used	---------------
TP140	AGCOUT2	Not used	---------------
TP141	SBO	To monitor LCD red signal at Pin 8 of IC8001 on LCD C.B.A. This test point is used for "LCD Sub Pedestal level adjustment."	3.4 V (0 step - 0 step)  Camera Mode (Built in 10 step)

Fig. 7-3

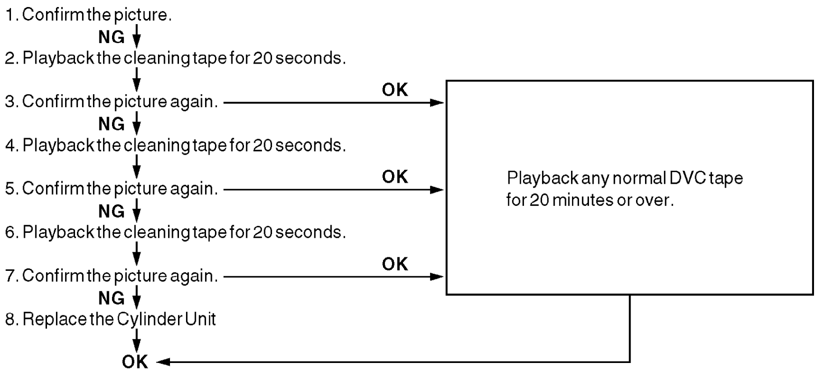
Pin No.	Signal Name	Description	Waveforms
TP142	UARTI	To monitor RS232C received data	---------------
TP143	RF GND	Not used	---------------
TP144	TCK	Not used	---------------
TP145	TMS	Not used	---------------
TP146	TDO	Not used	---------------
TP147	TDI	Not used	---------------
TP148	MIC CLOCK	MIC serial clodk output from camcorder to PC	---------------
TP149	MIC DATA	MIC serial data output from camcorder to PC	---------------
TP150	SBI	To monitor LCD blue signal at Pin 4 of IC8001 on LCD C.B.A. This test point is used for "LCD Sub Pedestal level adjustment."	3.6 V (0 step - 0 step)  Camera Mode (Built in 10 step)
TP151	UARTO	To monitor RS232C transmitted data	---------------
TP152	RECI	Not used	---------------
TP153	SIO	Not used	---------------
TP154	SCK	Not used	---------------
TP155	VD	Not used	---------------
TP156	(UNREG)	Power input terminal	---------------
TP157	(UNREG GND)	Grounding terminal	---------------
TP158	VTR RESET	Not used	---------------
TP159	CAM RESET	Not used	---------------
TP160	VTR RESET	Power microcontroller reset: low	---------------
TP161	(HID2)	To monitor HID signal at Pin 44 of IC3201 on Main C.B.A.	 Rec/PB Mode
TP162	(HID1)	To monitor HID signal at Pin 44 of IC3201 on Main C.B.A. (HID signal is inverted on Interface Board.)	 Rec/PB Mode

6.1.9. HOW TO USE THE DVC HEAD CLEANING TAPE / VFK1451

Please use the cleaning tape as described below.

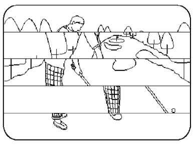
Fig. 8

Note: This cleaning tape has a total playback time of 2 minutes 30 seconds. it can be used 30 times.


1. Confirm the picture.
2. Playback the cleaning tape for 20 seconds.
3. Confirm the picture again.
4. Playback the cleaning tape for 20 seconds.
5. Confirm the picture again.
6. Playback the cleaning tape for 20 seconds.
7. Confirm the picture again.
8. Replace the Cylinder Unit

Playback any normal DVC tape for 20 minutes or over.

The picture will look like this in case of clogged video head.



6.1.10. REPLACEMENT PROCEDURES FOR CSP (CHIP SIZE PACKAGE) IC

6.1.10.1. EQUIPMENT

1. **Pre-Heater**
2. **Spot Heater**
3. **Vacuum Pick-up**
4. **P.C.B. Holder**

Fig. 9-1

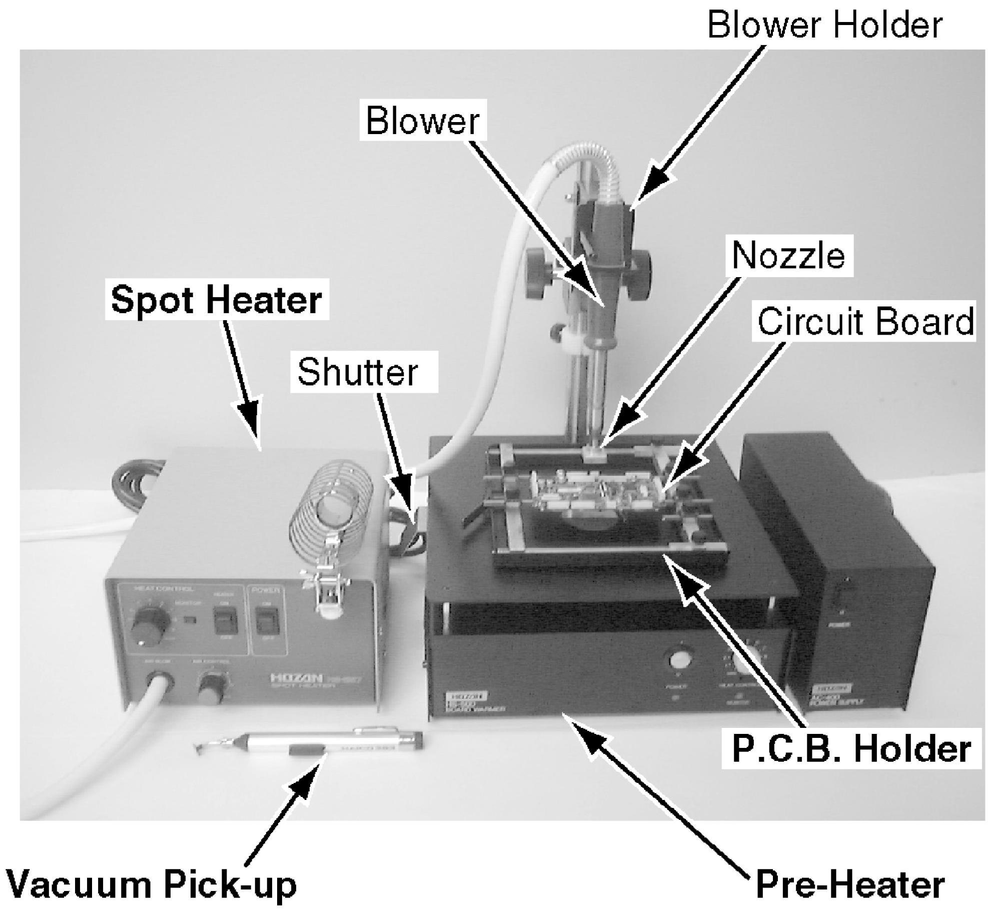
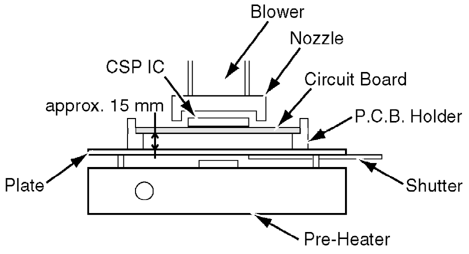
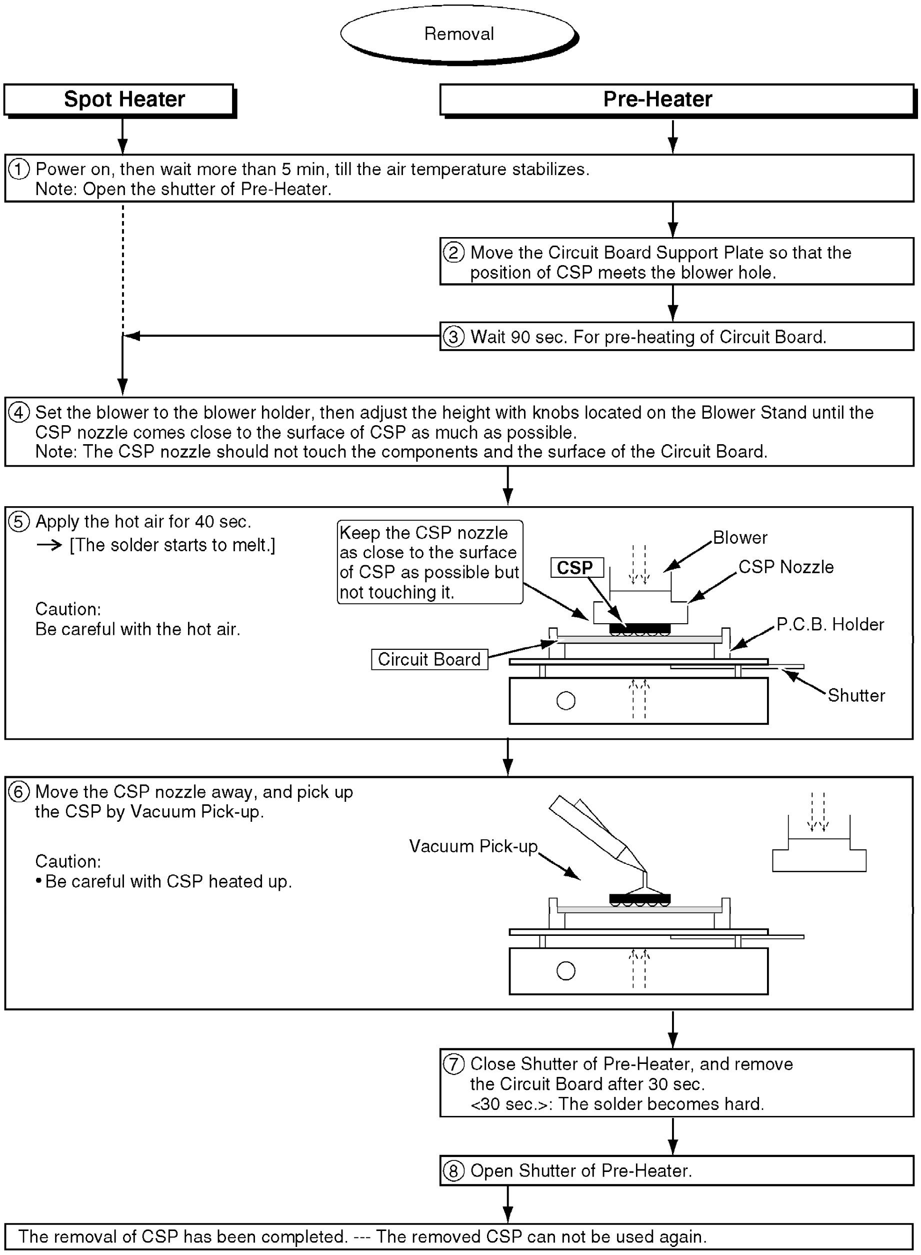

Blower Holder
Blower
Nozzle
Spot Heater
Circuit Board
Shutter
P.C.B. Holder
Vacuum Pick-up
Pre-Heater

Fig. 9-2

Fixture	Preparation for Fixture	Condition		Warming-up
		Heat Control Level	Air Control Level	
Spot Heater	Set a Nozzle to Blower of Spot Heater.	Level 8.5 (245 °C)	MAX	After setting fixtures, turn on the power. Then, wait for approx. 5 minutes to stabilize air condition. **Note:** Be sure to open the shutter of Pre-Heater.
Pre-Heater	Set the Blower to Blower Holder.	MAX (120 °C~150 °C)	---	
Reference for Temperature	 Blower Nozzle CSP IC Circuit Board approx. 15 mm P.C.B. Holder Plate Shutter Pre-Heater			

6.1.10.2. REMOVAL OF CSP IC

Fig. 9-3


Removal
Spot Heater
Pre-Heater
Keep the CSP nozzle as close to the surface of CSP as possible but not touching it.
CSP
Blower
CSP Nozzle
P.C.B. Holder
Circuit Board
Shutter
Vacuum Pick-up

① Power on, then wait more than 5 min, till the air temperature stabilizes.
Note: Open the shutter of Pre-Heater.

② Move the Circuit Board Support Plate so that the position of CSP meets the blower hole.

③ Wait 90 sec. For pre-heating of Circuit Board.

④ Set the blower to the blower holder, then adjust the height with knobs located on the Blower Stand until the CSP nozzle comes close to the surface of CSP as much as possible.
Note: The CSP nozzle should not touch the components and the surface of the Circuit Board.

⑤ Apply the hot air for 40 sec.
→ [The solder starts to melt.]

Caution:
Be careful with the hot air.

⑥ Move the CSP nozzle away, and pick up the CSP by Vacuum Pick-up.

Caution:
- Be careful with CSP heated up.

⑦ Close Shutter of Pre-Heater, and remove the Circuit Board after 30 sec.
<30 sec.>: The solder becomes hard.

⑧ Open Shutter of Pre-Heater.

The removal of CSP has been completed. --- The removed CSP can not be used again.

6.1.10.3. INSTALLATION OF CSP IC

Fig. 9-4

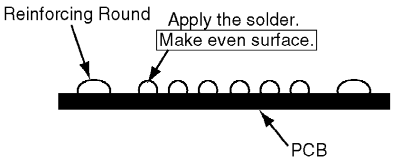
Mounting of CSP

A. Cleaning

① **Applying the flux to the round terminal pattern.**
Apply the flux using an applicator, then tap it on round terminals.

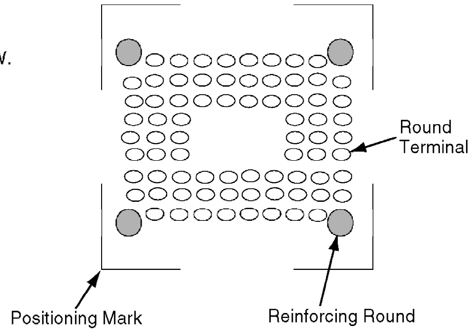
② **Applying the solder to round terminals of PCB. --- [Using string solder]**
Apply the solder to the soldering iron, then move the soldering iron on the round terminals so that the solder evenly stays on the round terminals (Confirm with Loupe).

Note:
- The power of the soldering iron should be less than 30 W.
- Be sure to make all solders applied are the same in size and height.



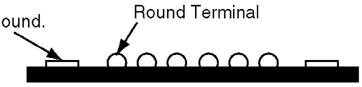
Caution:
- Do not touch the round terminals with the soldering iron. Otherwise, pattern may be damage.

(Round Terminals Pattern of CSP)



Remark:
There are 2 types of CSPs. One of them is with Reinforcing Round, and the other one is without.

③ **For CSP with Reinforcing Round ⟶ Removing the solder on 4 corners (Reinforcing Rounds)**



Remove the solder on Reinforcing Round.

④ **Cleaning of the round terminal pattern using an applicator with the cleaner (alcohol etc.).**

⑤ **Applying the flux to the round terminal pattern.**
Note: Do not let any dust get into the flux.

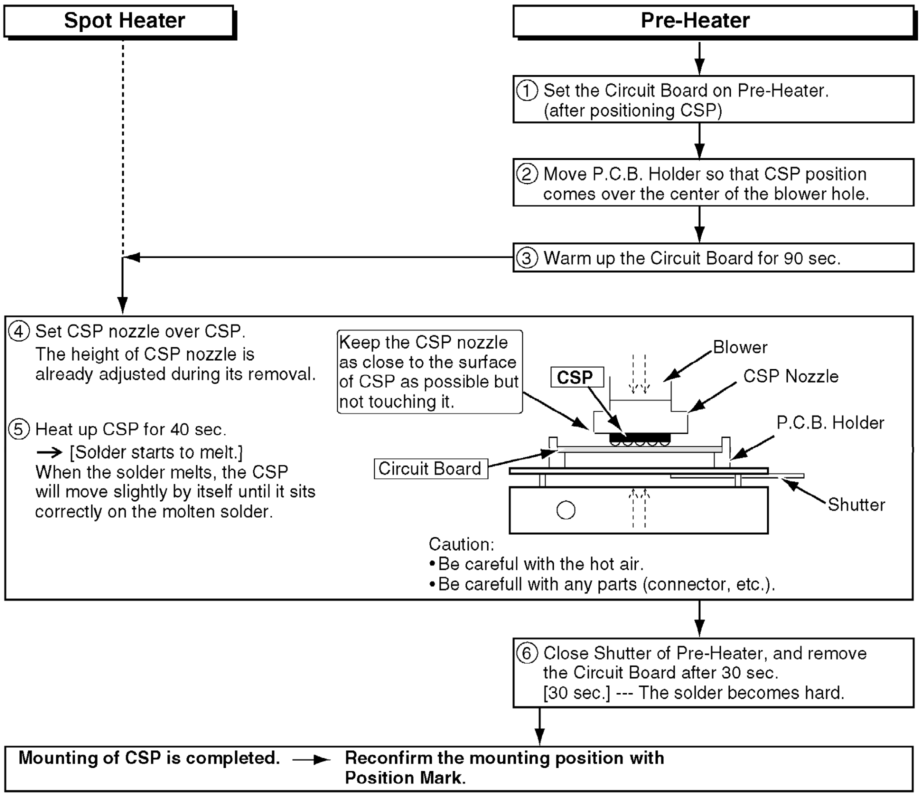
B. Positioning

⑥ **Check if there are solder on new CSP or not. If not, perform steps (1) ~ (4).**
Note: When applying the solder, do not touch the surface of CSP with the soldering iron.
(1) Apply enough flux to the CSP.
(2) Apply a small amount of the solder.
(3) Clean the flux once.
(4) Apply a small amount of flux to CSP.
Note: Do not apply too much the flux.

⑦ **Positioning of new CSP on the round terminal pattern.**
- Put CSP on the round terminal pattern so that 4 corners of CSP meet the positioning marks printed on PCB.

Fig. 9-5

C. Mounting


Spot Heater
Pre-Heater
Keep the CSP nozzle as close to the surface of CSP as possible but not touching it.
CSP
Blower
CSP Nozzle
P.C.B. Holder
Circuit Board
Shutter

① Set the Circuit Board on Pre-Heater. (after positioning CSP)

② Move P.C.B. Holder so that CSP position comes over the center of the blower hole.

③ Warm up the Circuit Board for 90 sec.

④ Set CSP nozzle over CSP. The height of CSP nozzle is already adjusted during its removal.

⑤ Heat up CSP for 40 sec. → [Solder starts to melt.] When the solder melts, the CSP will move slightly by itself until it sits correctly on the molten solder.

Caution:

- Be careful with the hot air.
- Be carefull with any parts (connector, etc.).

⑥ Close Shutter of Pre-Heater, and remove the Circuit Board after 30 sec. [30 sec.] --- The solder becomes hard.

Mounting of CSP is completed. → Reconfirm the mounting position with Position Mark.

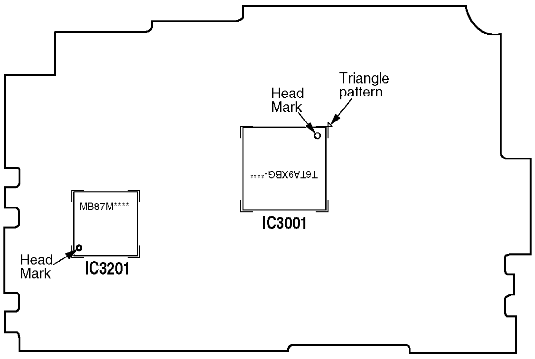
That's all for CSP repair, and the final confirmation if the repair work is OK or not should be made by assembling the repaired Circuit Board into the camera unit.

6.1.10.4. CSP IC LOCATION

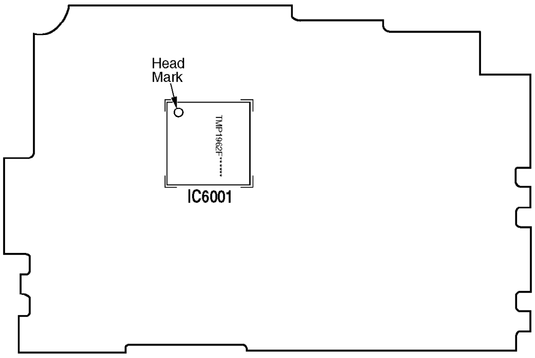
Fig. 9-6

Make sure to install CSP IC in the correct position on the Main C.B.A. as shown.

Main C.B.A.


Triangle pattern
Head Mark
T6TA9XBG-****
IC3001
MB87M****
Head Mark
IC3201

(Component side)

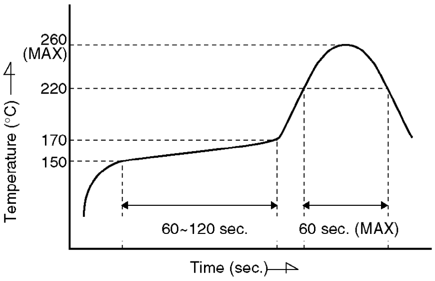

Head Mark
TMP1962F******
IC6001

(Foil side)

6.1.10.5. TEMPERATURE PROFILE FOR HEAT RESISTANCE OF CSP IC

When using equipment other than the Pre-Heater shown in Fig. 9-1, refer to the temperature profile. CSP ICs in the 2004 model have the following temperature profile.

Fig. 9-7

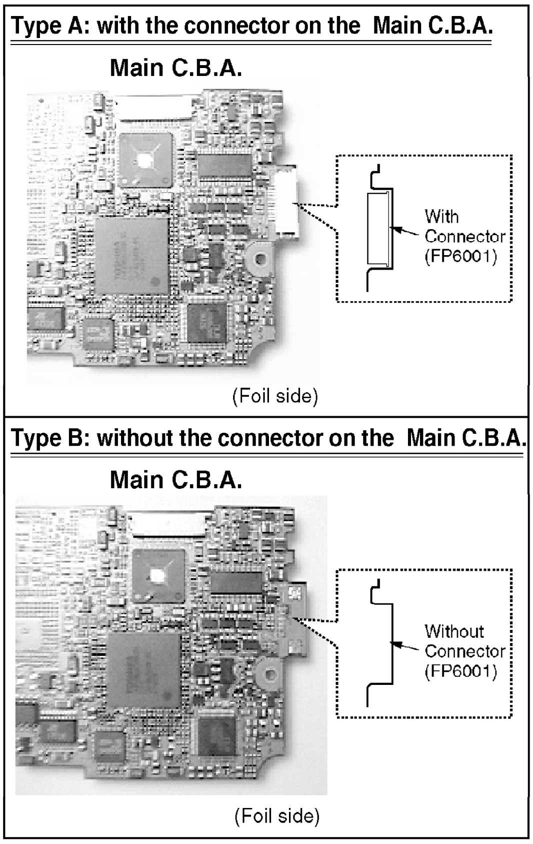


6.1.11. IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE

Two types of IC6001 (LSSK0045, C2DBMK000022) on the Main C.B.A. have been used on a running change basis. There are two servicing methods (Type A, B) because the adjacent circuit is different depending on which IC6001 is used in the unit.

Be sure to confirm if there is the Connector (FP6001) on the Main C.B.A. before servicing. When replacing, be sure to order the proper parts referring to the parts list for Type A or Type B as follows.

Fig. 10


Type A: with the connector on the Main C.B.A.
Main C.B.A.
With
Connector
(FP6001)
(Foil side)
Type B: without the connector on the Main C.B.A.
Main C.B.A.
Without
Connector
(FP6001)
(Foil side)

Ref. No.	Type A	Type B
	Part No.	Part No.
IC6001	LSSK0045	C2DBMK000022
IC6006	C0CBCAC00129	C0CBCAC00144
IC6008	C0EBD0000281	C0EBB0000135
R6031	- - - - - - - - - -	ERJ2GE0R00X
R6032	ERJ2GE0R00X	- - - - - - - - - -
C6024	ECJ0EC1H120J	ECJ0EC1H270J
C6031	ECJ0EC1H120J	ECJ0EC1H220J
FP6001	K1MN12B00102	- - - - - - - - - -

6.1.12. SPECIAL NOTE

All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handlings techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.

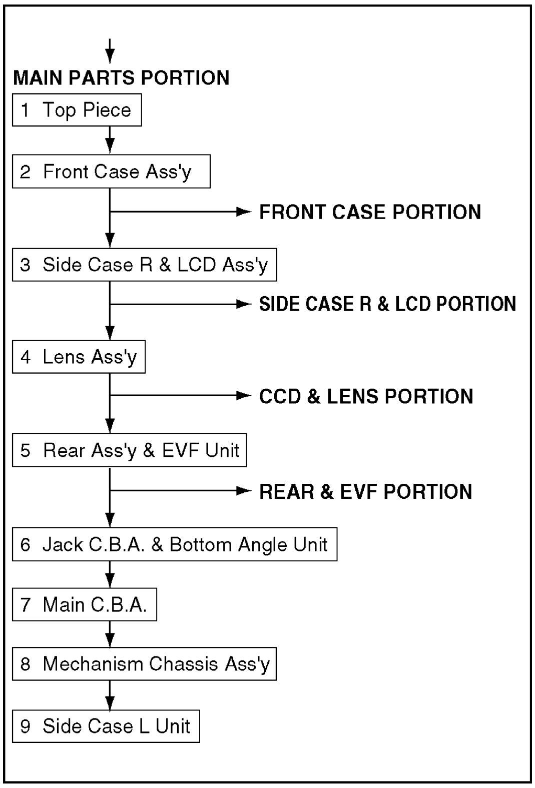
7. DISASSEMBLY ASSEMBLY PROCEDURES

7.1. CABINET SECTION

7.1.1. DISASSEMBLY FLOWCHART

This flow chart indicates the disassembly steps of the cabinet parts and the P.C.Boards in order to gain access to item (s) to be serviced. When reassembling, perform the step (s) in the reverse order. Bend, route and dress the wires as they wereoriginally.

Fig. D1


MAIN PARTS PORTION
1 Top Piece
2 Front Case Ass'y
FRONT CASE PORTION
3 Side Case R & LCD Ass'y
SIDE CASE R & LCD PORTION
4 Lens Ass'y
CCD & LENS PORTION
5 Rear Ass'y & EVF Unit
REAR & EVF PORTION
6 Jack C.B.A. & Bottom Angle Unit
7 Main C.B.A.
8 Mechanism Chassis Ass'y
9 Side Case L Unit

Note :

1. **When removing the cabinet, work with care so as not to break the Locking Tabs.**
2. **Place a cloth or some other soft material under the P.C. Boards or Unit to prevent damage.**
3. **When reinstalling, ensure that the connectors are connected and electrical components have not been damaged.**
4. **Do not supply power to the unit during disassembly and reassembly.**

7.1.2. Disassembly Method

7.2. MECHANISM SECTION

Flow-Chart for Disassembly Procedures

No.	Item / Part	Fig.	Removal (Screw, Connector, Flex. & Other)
1	Cassette Up Unit	Fig. M1 Fig. M2 Fig. M3 Fig. M4	It makes the mechanism position in Eject condition (For Battery) 3-Screws (A) 3-Tabs It remove the piece arrangement unit from rail department
2	Cylinder Unit	Fig. M5 Fig. M6	1-Screw (B) 3-Screw (C) Cylinder Unit

Fig. M1

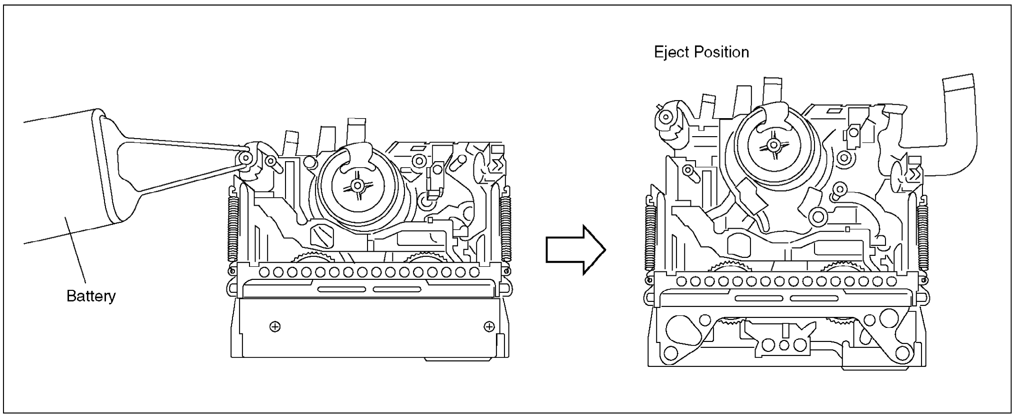

Eject Position
Battery

Fig. M2

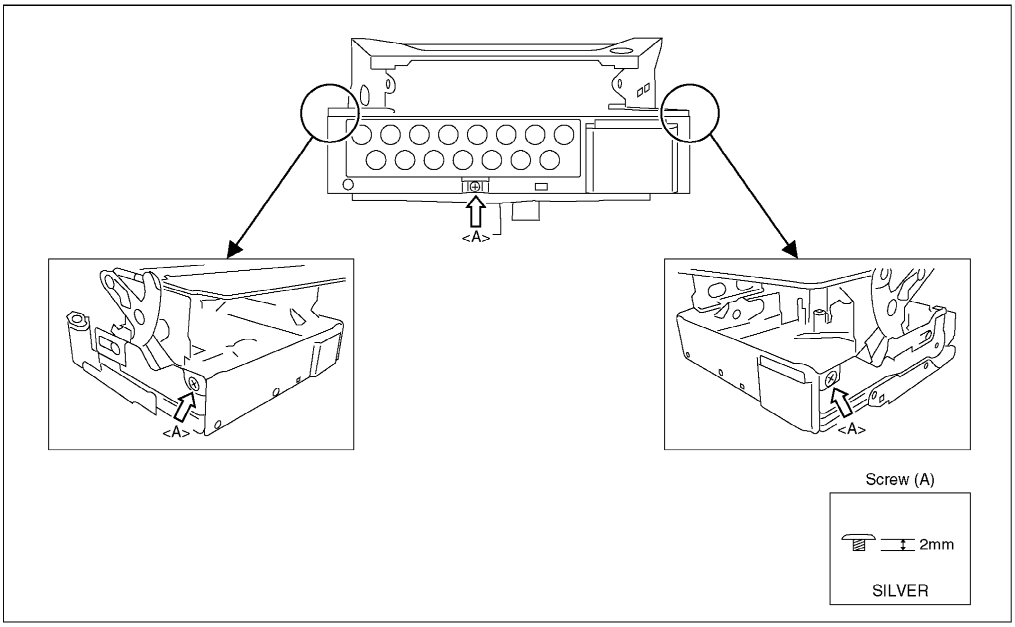

<A>
<A>
<A>
Screw (A)
2mm
SILVER

Fig. M3

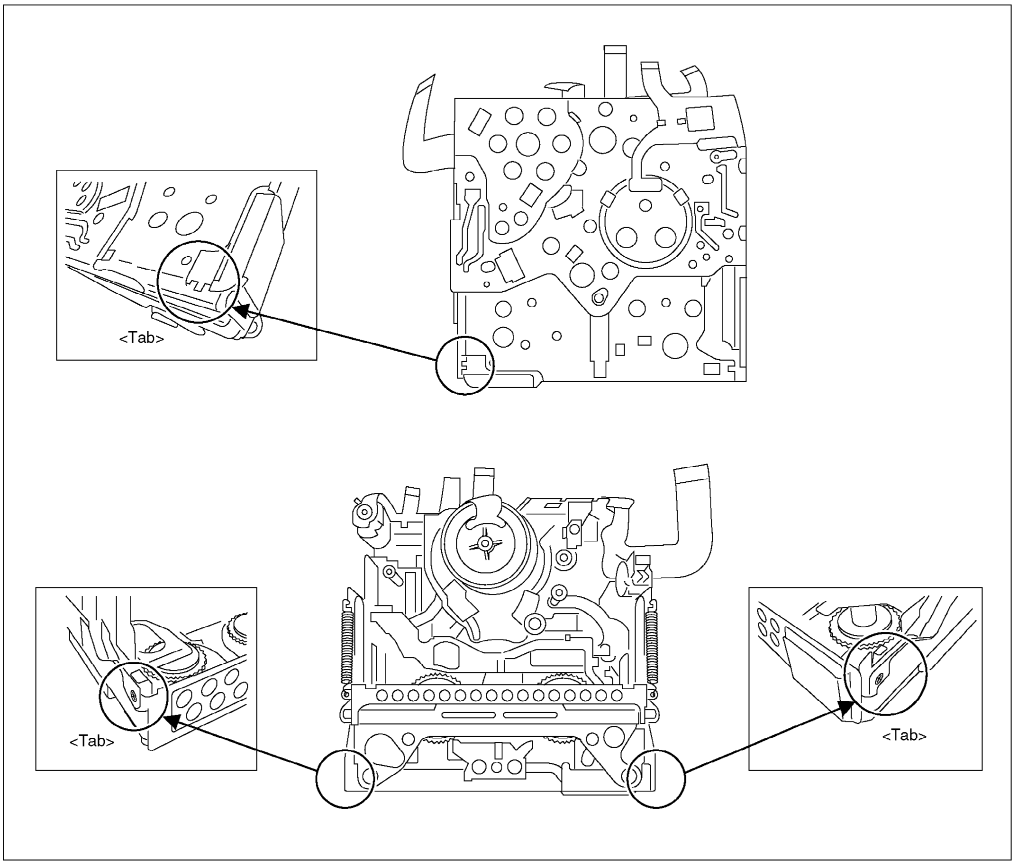


Fig. M4

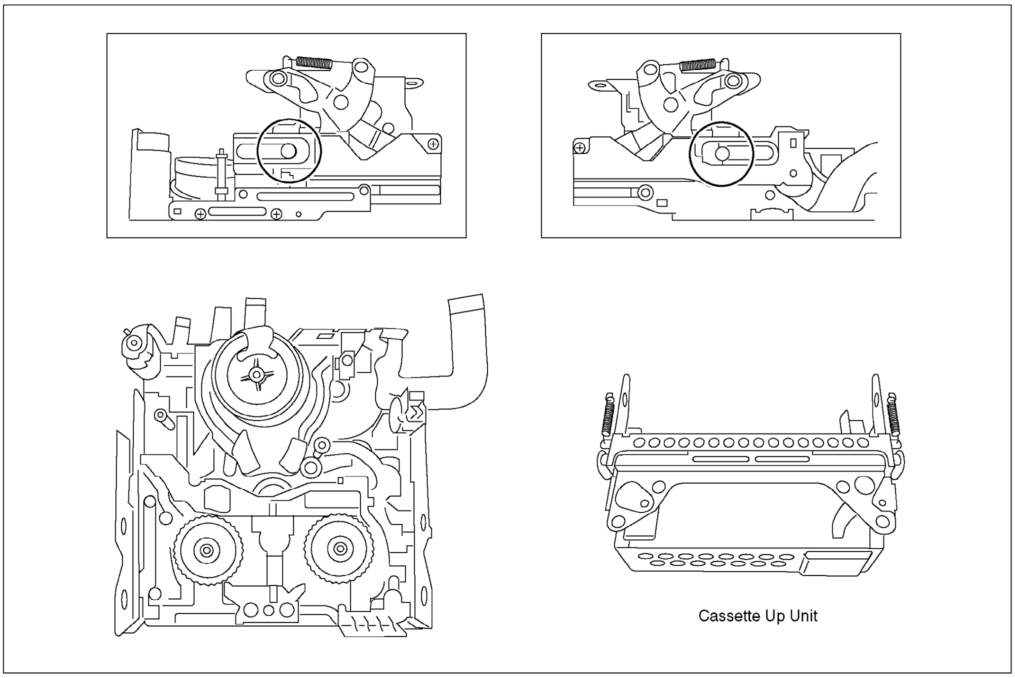

Cassette Up Unit

Fig. M5

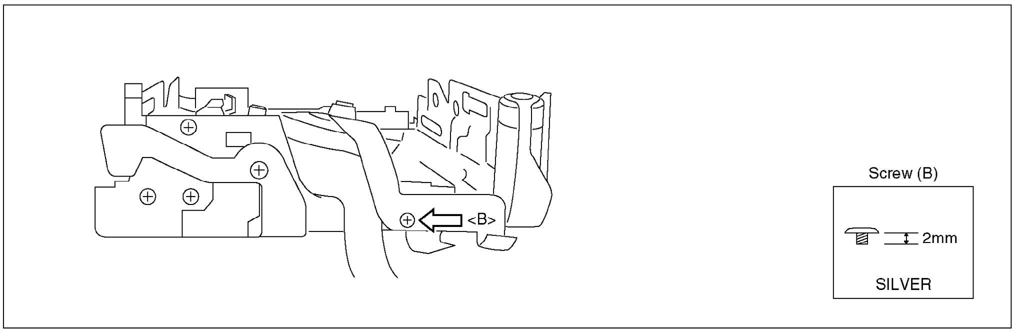
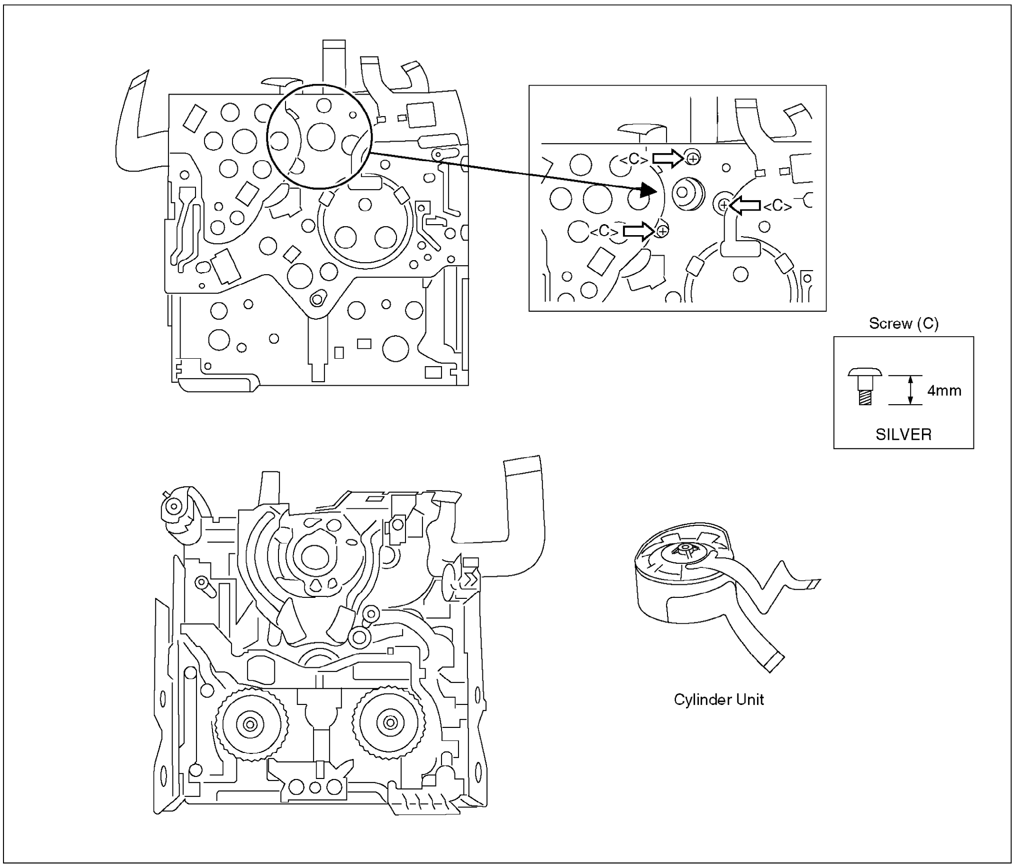
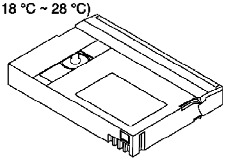
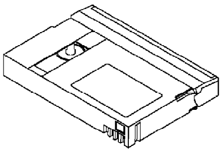
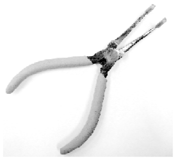
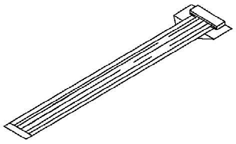
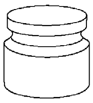
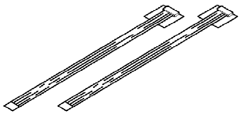
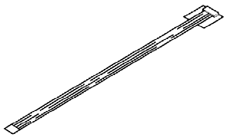
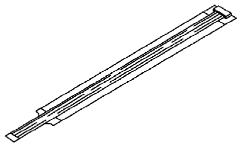
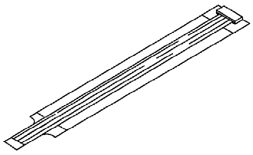
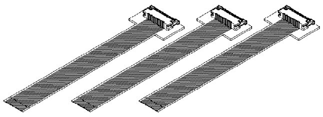
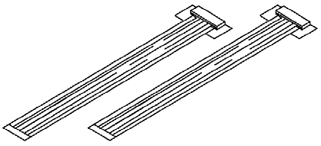
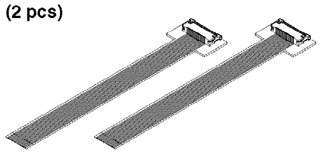

<B>
Screw (B)
2mm
SILVER

Fig. M6

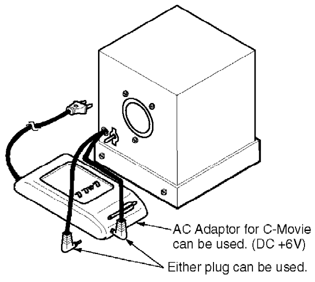

<C>
<C>
<C>
Screw (C)
4mm
SILVER
Cylinder Unit

8. ADJUSTMENT PROCEDURES

8.1. SERVICE FIXTURES & TOOLS

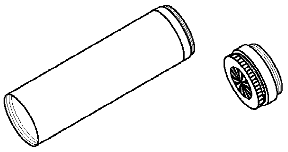
Color Bar Standard Tape **VFM3010EDS** (Keeping condition: Keep at 18 °C ~ 28 °C) 	**DVC Head Cleaning Tape** **VFK1451** 	**Plier for Non ZIF Connector** **LSVQ0028** 
Extension Cable 28P **VUVS0015** 	**Grease** **LSZG0030** 	**Extension Cable 8P** **VUVS0019** **(2 pcs)** 
Extension Cable 10P **LSUA0016** 	**Extension Cable 12P** **VUVS0007**  This Extension Cable is used for models without SD Slot.	**Extension Cable 14P** **VFKW0124A** 
Extension Cable 18P **LSUA0017** **(3 pcs)** 	**Extension Cable 22P** **VUVS0012** **(2 pcs)** 	**Extension Cable 26P** **LSUA0021** **(2 pcs)**  Either (one) of these Extension Cables is used for models without SD Slot.

Light Box and AC Adaptor VFK1164LBX1

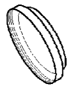


(AC Adaptor is not supplied)

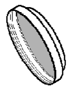
Infinity Lens (with Focus Chart) VFK1164TCM02



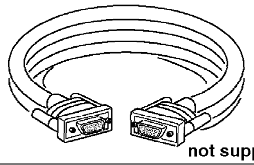
27mm Ring VFK1164TAR27



Color Conversion Filter (C14) VFK1164TFCT2



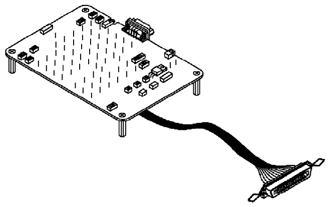
RS232C Cable



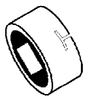
not supplied

Post Height Adjustment Fixture VFK1899

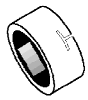
Interface Board for Electrical Adjustment LSUP0007



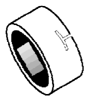
White Chart VFK1164TFWC2



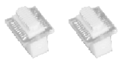
Color Bar Chart VFK1164TFCB2



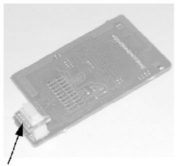
Gray Scale Chart VFK1164TFGS2



Connection Adaptor (2 pcs) VFK1898

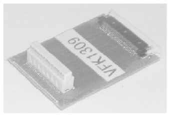


EVR Connector Board VFK1897

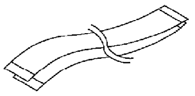


(With one Connection Adaptor)

EVR Connector Board VFK1309



30 pin Flat Cable (2 pcs) VFK1317



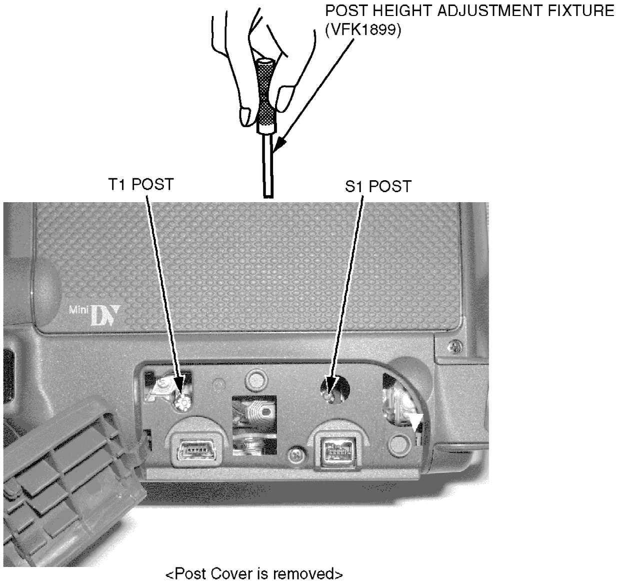
8.2. MECHANICAL ADJUSTMENT

8.2.1. ENVELOPE OUTPUT ADJUSTMENT

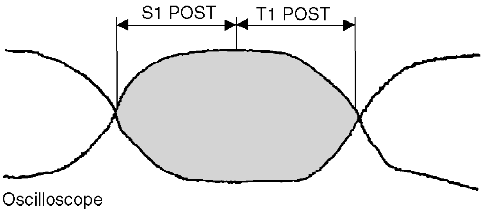
When replacing the Main Chassis Unit or the Cylinder Unit, be sure to perform the Envelope Output Adjustment as shown below.

1. **Open the Jack Cover. Then, insert a flat headed (-) screwdriver or similar object into the gap of the Post Cover, and remove it while releasing the 2 Locking Tabs.**
2. **Connect the Camcorder and the Interface Board with the EVR Connector Boards, the Connection Adaptors and the 30 pin Flat Cables.**
3. **Connect the oscilloscope to "Envelope TP" on the Interface Board.**

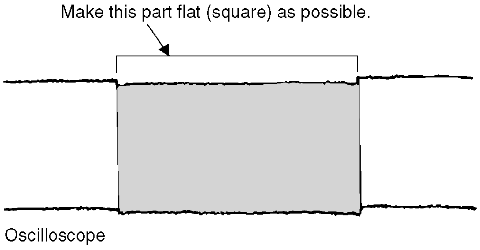
4. **Playback the Color Bar Standard Tape (VFM3010EDS).**
5. **Adjust the S1 post by turning the top of post with Post Height Adjustment Fixture so that the left half of envelope signal becomes flat as possible.**
6. **Adjust the T1 post by turning the top of post with Post Height Adjustment Fixture so that the right half of envelope signal becomes flat as possible.**


POST HEIGHT ADJUSTMENT FIXTURE
(VFK1899)
T1 POST
S1 POST
Mini DV

<Post Cover is removed>


S1 POST
T1 POST
Oscilloscope

Before Adj.


Make this part flat (square) as possible.
Oscilloscope

After Adj.

Note:
After the adjustment, be sure to confirm BER (Bit Error Ratio) using EVR Adjustment Software. If it is NG, try this adjustment once again.

8.3. ELECTRICAL ADJUSTMENT

8.3.1. INITIAL GUIDELINE

The table below shows which adjustments are necessary according to the unit parts and individual parts to be replaced. Make sure to perform these adjustments shown below as necessary.

Replacement Parts Adjustment Item		MAIN C.B.A.	IC501 (CAMERA SIGNAL PROCESS)	IC701 (FOCUS/ZOOM MOTOR DRIVE & IRIS/HALL AMP CONTROL)	IC901(EVF SIGNAL PROCESS)	IC3001 (CAMERA DIGITAL SIGNAL PROCESS/SHUFFLING)	IC3101 (VIDEO/AUDIO SIGNAL PROCESS)	IC6001 (SYSTEM MICROCONTROLLER)	IC6002 (EEPROM)	LCD C.B.A.	IC8001(LCD RGB SIGNAL PROCESS)	CCD UNIT	LENS UNIT	CYLINDER UNIT	MAIN CHASSIS UNIT
Camera	CAM hall amplifier and Iris PWM	○		○				○	○				○		
	CAM Tracking and De-focus adjustment	○							○				○		
	CAM WB measurement	○	○			○			○			○			
	CAM AWB 3100	○	○			○			○			○			
	CAM AWB 5100	○	○			○			○			○			
	CAM AWB 4500	○	○			○			○			○			
	CAM Address crack compensation	○							○			○			
Video	VCR Sensitivity adj of Tape sensors	○							○						○
	VCR PG shifter adjustment	○							○					○	○
	VCR luminance level adjustment	○				○	○		○						
	VCR Chroma level adjustment	○				○	○		○						
LCD	LCD Horizontal free running adjustment	○							○	○	○				
	LCD Pedestal level adjustment	○							○	○	○				
	LCD Sub Pedestal level adjustment	○							○	○	○				
	LCD VCOM level adjustment	○							○	○	○				
EVF	EVF Contrast adjustment	○			○				○						
	EVF Bright adjustment	○			○				○						
	EVF Sub Bright adjustment	○			○				○						

Note: ○ : Adjustment Item

8.3.2. TEST EQUIPMENT

1. Dual-Trace Oscilloscope

Voltage Range: 0.001 to 50 V/Div.
Frequency Range: DC to 50 MHz
Probes: 10:1, 1:1

2. Frequency Counter

3. Vectorscope

4. Plastic Tip Driver

5. Personal Computer

PC: IBM PC/AT or compatible
OS: Microsoft ® Windows ® 98 - Windows ® XP
CPU: 486 or higher

Drive: 3.5 inch 1.44 MB floppy disk drive
Port: D-Sub-9-pin Serial or D-Sub-25-pin Serial
Monitor: VGA Color

6. PC-EVR Adjustment Program (VF0D2004DV10)

   Note:

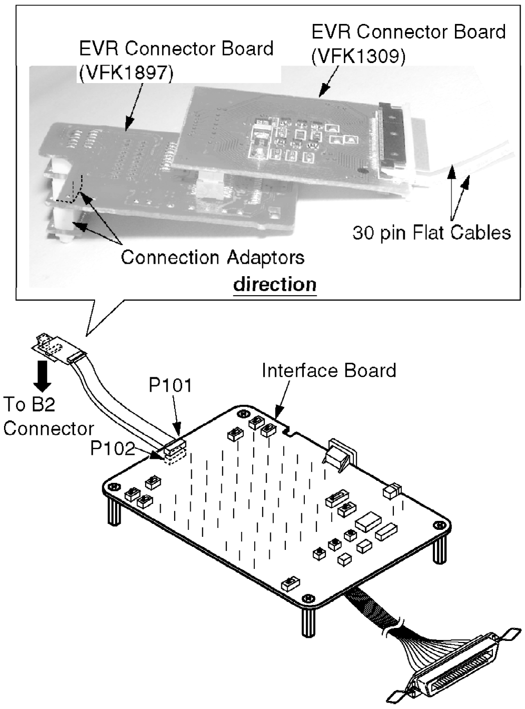
   Ask for the latest version when placing an order for the PC-EVR Adjustment Program.

7. Interface Board (LSUP0007)
8. RS232C Cable
9. Connection Adaptor (VFK1898)
10. EVR Connector Board (VFK1897)
11. EVR Connector Board (VFK1309)
12. 30 pin Flat Cable (VFK1317)
13. Color Bar Standard Tape (VFM3010EDS)
    (Keeping condition: Keep at 18 °C ~ 28 °C)
14. Gray Scale Chart (VFK1164TFGS2)
15. White Chart (VFK1164TFWC2)
16. Color Bar Chart (VFK1164TFCB2)
17. Light Box and AC Adaptor (for VHS-C)
18. Infinity Lens (with Focus Chart) (VFK1164TCM02)
19. AC Adaptor (for DVC)
20. 27 mm Ring (VFK1164TAR27)
21. Color Conversion Filter (C14) (VFK1164TFCT2)

8.3.3. PREPARATION

1. Insert a flat headed (-) screwdriver or similar object, remove the EVR Cover.
2. Connect the 2 Connection Adaptors and the 2 EVR Connector Boards. Then, connect the 30 pin Flat Cables to P101 and P102 on the Interface Board.

Fig. E1-1

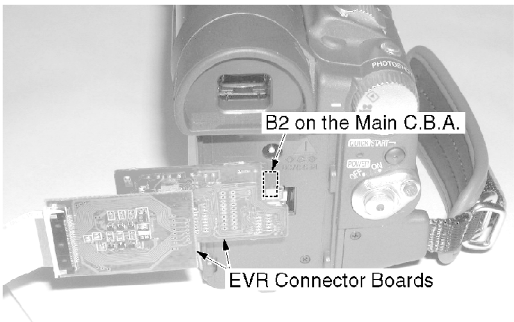

EVR Connector Board
(VFK1897)
EVR Connector Board
(VFK1309)
30 pin Flat Cables
Connection Adaptors
direction
Interface Board
P101
To B2
Connector
P102

Note:

When connecting them, pay attention to the direction of them.

3. **Connect them to the Connector B2 on the Main C.B.A.**

Fig. E1-2


B2 on the Main C.B.A.
EVR Connector Boards

4. **Connect the AC Adaptor to the camcorder.**
5. **Connect the P106 on the Interface Board to RS232C of the PC with Inter Link Cable.**
6. **Set the SW115 (M103 EXMOD1) on the Interface Board to "GND."**
7. **Set the SW110 (RS232C SEL) on the Interface Board to "M3."**
8. **Set the SW114 (M103 VPP) on the Interface Board to "3V."**
9. **Set the SW103 (RECI) on the Interface Board to "OFF."**
10. **Set the SW108 (BST TEST) on the Interface Board to "OFF."**

11. Set the SW109 (IRIS) on the Interface Board to center.

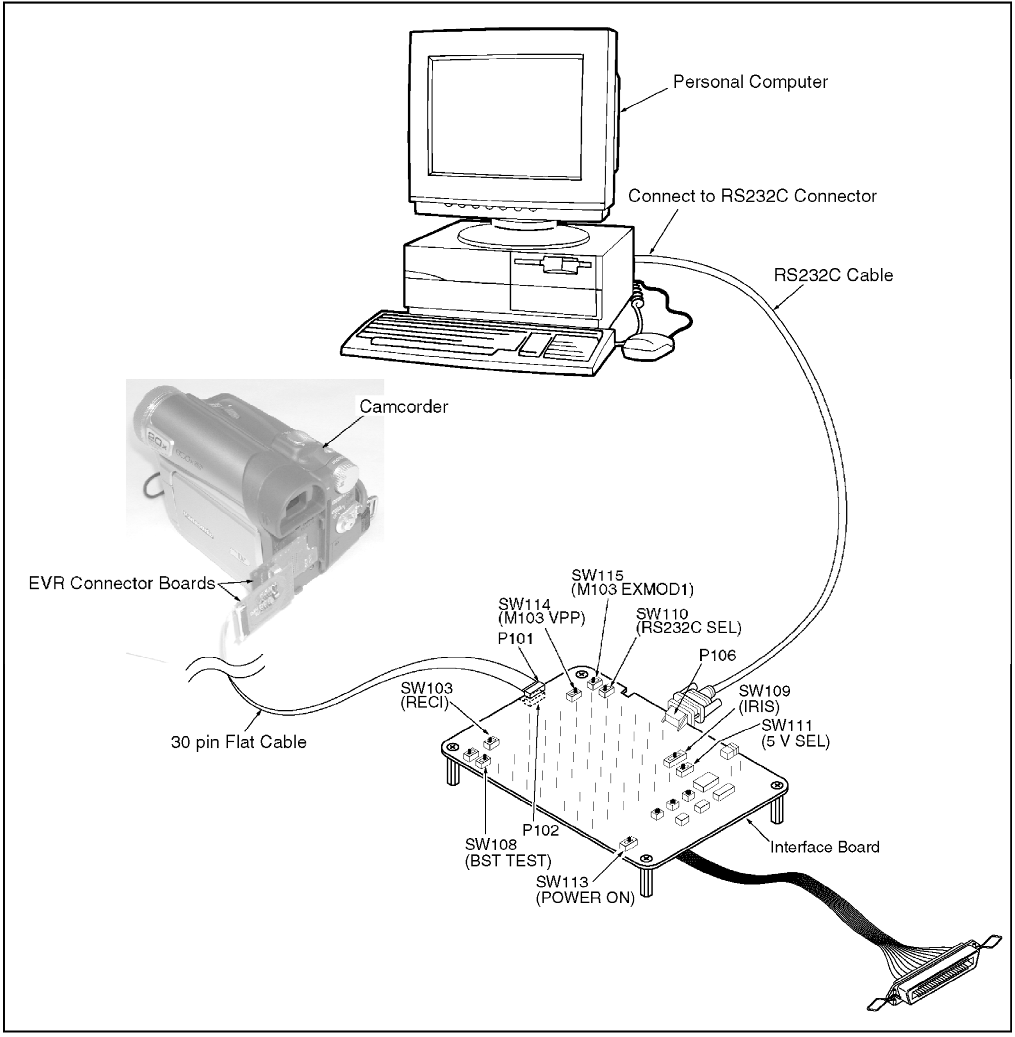
12. Set the SW111 (5V SEL) on the Interface Board to "CAM 5V."

13. Set the SW113 (POWER ON) on the Interface Board to "NORM."

14. Power on the unit.

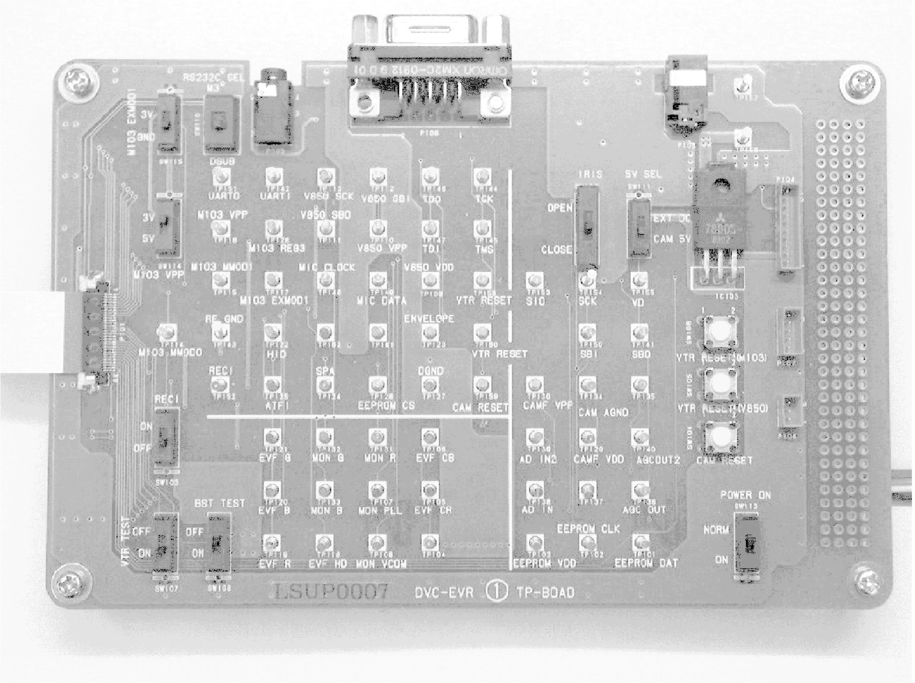
Fig. E1-3

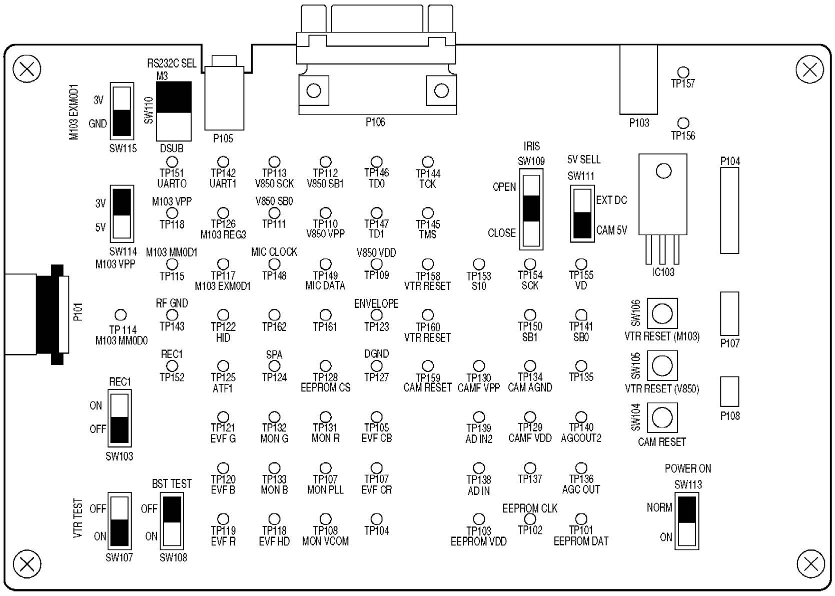
<Computer Assisted Adjustment System>


Personal Computer
Connect to RS232C Connector
RS232C Cable
Camcorder
EVR Connector Boards
SW115
(M103 EXMOD1)
SW114
(M103 VPP)
P101
SW110
(RS232C SEL)
P106
SW103
(RECI)
SW109
(IRIS)
SW111
(5 V SEL)
30 pin Flat Cable
P102
SW108
(BST TEST)
SW113
(POWER ON)
Interface Board

8.3.4. TP Board Location

Fig. E1-4



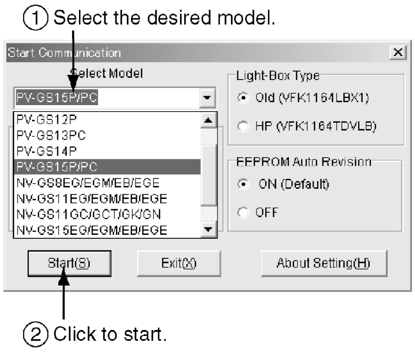

RS232C SEL
M3
SW110
DSUB
M103 EXMOD1
3V
GND
SW115
P105
P106
P103
TP157
TP156
P104
TP151 UART0
TP142 UART1
TP113 V850 SCK
TP112 V850 SB1
TP146 TD0
TP144 TCK
IRIS
SW109
OPEN
CLOSE
5V SELL
SW111
EXT DC
CAM 5V
3V
5V
M103 VPP
TP118
V850 SB0
TP126 M103 REG3
TP111
TP110 V850 VPP
TP147 TDI
TP145 TMS
SW114
M103 VPP
M103 MMOD1
TP115
MIC CLOCK
TP117 M103 EXMOD1
TP148
TP149 MIC DATA
V850 VDD
TP109
TP158 VTR RESET
TP153 SIO
TP154 SCK
TP155 VD
IC103
P101
TP 114 M103 MMOD0
RF GND
TP143
TP122 HID
TP162
TP161
ENVELOPE
TP123
TP160 VTR RESET
TP150 SB1
TP141 SB0
SW106
VTR RESET (M103)
P107
REC1
REC1
TP152
TP125 ATF1
SPA
TP124
TP128 EEPROM CS
DGND
TP127
TP159 CAM RESET
TP130 CAMF VPP
TP134 CAM AGND
TP135
SW105
VTR RESET (V850)
P108
ON
OFF
SW103
TP121 EVF G
TP132 MON G
TP131 MON R
TP105 EVF CB
TP139 AD IN2
TP129 CAMF VDD
TP140 AGCOUT2
SW104
CAM RESET
TP120 EVF B
TP133 MON B
TP107 MON PLL
TP107 EVF CR
TP138 AD IN
TP137
TP136 AGC OUT
POWER ON
SW113
BST TEST
VTR TEST
OFF
ON
OFF
ON
SW107
SW108
TP119 EVF R
TP118 EVF HD
TP108 MON VCOM
TP104
EEPROM CLK
TP103 EEPROM VDD
TP102
TP101 EEPROM DAT
NORM
ON

8.3.5. SET UP OF PC-EVR ADJUSTMENT PROGRAM

1. **Turn on the PC and install the PC-EVR Adjustment Program into the PC.**
2. **Execute the "kdv2004.exe" file by double clicking to start up the PC-EVR Adjustment Program.**
   The main menu will be displayed.
3. **Select the desired model.**

4. Turn on the camcorder. Then click "Start."

Fig. E2-1


① Select the desired model.

② Click to start.

Start Communication

Select Model: PV-GS15P/PC

- PV-GS12P
- PV-GS13PC
- PV-GS14P
- PV-GS15P/PC
- NV-GS8EG/EGM/EB/EGE
- NV-GS11EG/EGM/EB/EGE
- NV-GS11GC/GCT/GK/GN
- NV-GS15EG/EGM/EB/EGE

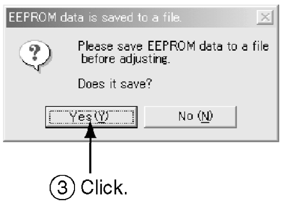
Light-Box Type
● Old (VFK1164LBX1)
○ HP (VFK1164TDVLB)

EEPROM Auto Revision
● ON (Default)
○ OFF

Start(S)
Exit(X)
About Setting(H)

5. When the communication is complete, the dialog will appear. Then, click "Yes," and "Save" to save the EEPROM data.

Fig. E2-2


③ Click.

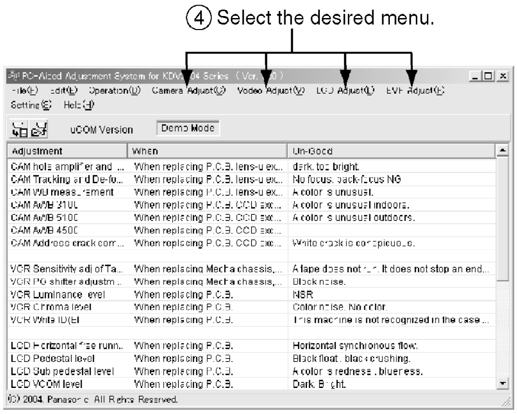
EEPROM data is saved to a file.

Please save EEPROM data to a file before adjusting.

Does it save?

6. When saving for EEPROM data is complete, the menu will appear. To perform each adjustment, display the adjustment menu by selecting the desired menu from "Camera Adjust," "Video Adjust," "LCD Adjust" or "EVF Adjust" and select each adjustment item.

Fig. E2-3


④ Select the desired menu.

PC-Aided Adjustment System for KDV2004 Series
File(F)
Edit(E)
Operation(O)
Camera Adjust(C)
Video Adjust(V)
LCD Adjust(L)
EVF Adjust(E)
Setting(S)
Help(H)
uCOM Version
Demo Mode
(C) 2004, Panasonic All Rights Reserved.

Adjustment	When	Un-Good
CAM hole amplifier and ...	When replacing P.C.B. lens-u ex...	dark, too bright.
CAM Tracking and De-fo...	When replacing P.C.B. lens-u ex...	No focus, back-focus NG
CAM WB measurement	When replacing P.C.B. lens-u ex...	A color is unusual.
CAM AWB 3100	When replacing P.C.B. CCD exc...	A color is unusual indoors.
CAM AWB 5100	When replacing P.C.B. CCD exc...	A color is unusual outdoors.
CAM AWB 4500	When replacing P.C.B. CCD exc...	
CAM Address crack corr...	When replacing P.C.B. CCD exc...	White crack is conspicuous.
VCR Sensitivity adj of Ta...	When replacing Mecha chassis,...	A tape does not run. It does not stop an end...
VCR PG shifter adjustm...	When replacing Mecha chassis,...	Block noise.
VCR Luminance level	When replacing P.C.B.	NSR
VCR Chroma level	When replacing P.C.B.	Color noise. No color.
VCR Write ID(E)	When replacing P.C.B.	This machine is not recognized in the case ...
LCD Horizontal free runn...	When replacing P.C.B.	Horizontal synchronous flow.
LCD Pedestal level	When replacing P.C.B.	Black float, black crushing.
LCD Sub pedestal level	When replacing P.C.B.	A color is redness, blueness.
LCD VCOM level	When replacing P.C.B.	Dark, Bright.

Note:

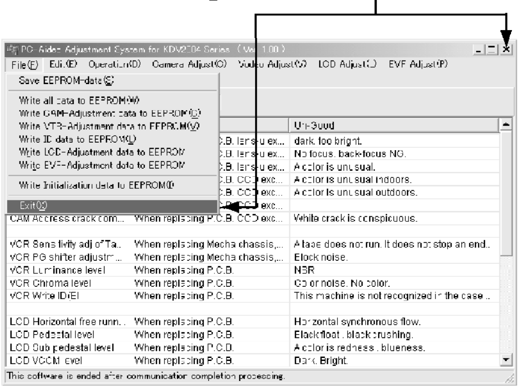
The adjusted data is stored in the EEPROM IC after each adjustment.

7. After adjustment, to close the software, select "Exit" in the File

menu or close the window.

Fig. E2-4

⑤ Select "Exit" or close the window.


PC-Aided Adjustment System for KDV2004 Series (Ver 1.00)
File(F)
Edit(E)
Operation(D)
Camera Adjust(C)
Video Adjust(V)
LCD Adjust(L)
EVF Adjust(P)
Save EEPROM-data(S)
Write all data to EEPROM(W)
Write CAM-Adjustment data to EEPROM(C)
Write VTR-Adjustment data to EEPROM(V)
Write ID data to EEPROM(L)
Write LCD-Adjustment data to EEPROM
Write EVF-Adjustment data to EEPROM
Write Initialization data to EEPROM(I)
Exit(X)

		Un-Good
	C.B. lens-u ex...	dark. too bright.
	C.B. lens-u ex...	No focus. back-focus NG.
	C.B. lens-u ex...	A color is unusual.
	C.B. CCD exc...	A color is unusual indoors.
	C.B. CCD exc...	A color is unusual outdoors.
	CCD exc...	
CAM Access crack com...	When replacing P.C.B. CCD exc...	White crack is conspicuous.
VCR Sensitivity adj of Ta..	When replacing Mecha chassis,...	A tape does not run. It does not stop an end..
VCR PG shifter adjustm...	When replacing Mecha chassis,...	Block noise.
VCR Luminance level	When replacing P.C.B.	NBR
VCR Chroma level	When replacing P.C.B.	Color noise. No color.
VCR Write ID(E)	When replacing P.C.B.	This machine is not recognized in the case ..
LCD Horizontal free runn..	When replacing P.C.B.	Horizontal synchronous flow.
LCD Pedestal level	When replacing P.C.B.	Black float . black crushing.
LCD Sub pedestal level	When replacing P.C.B.	A color is redness . blueness.
LCD VCOM level	When replacing P.C.B.	Dark. Bright.

This software is ended after communication completion processing.

9. SCHEMATIC DIAGRAMS

9.1. SCHEMATIC DIAGRAM & CIRCUIT BOARD LAYOUT NOTES

9.2. MAIN SCHEMATIC DIAGRAMS

9.3. LCD SCHEMATIC DIAGRAM

9.4. FRONT SCHEMATIC DIAGRAM

9.5. REAR / JACK SCHEMATIC DIAGRAMS

9.6. EVF BACKLIGHT / SIDE CASE R SCHEMATIC DIAGRAMS

9.7. CCD / SIDE CASE L / LCD SW SCHEMATIC DIAGRAMS

9.8. INTERCONNECTION SCHEMATIC DIAGRAM

9.9. VOLTAGE CHART

10. CIRCUIT BOARD LAYOUT

10.1. MAIN C.B.A.

10.2. REAR C.B.A.

10.3. FRONT C.B.A.

10.4. JACK C.B.A.

10.5. LCD C.B.A.

11. BLOCK DIAGRAMS

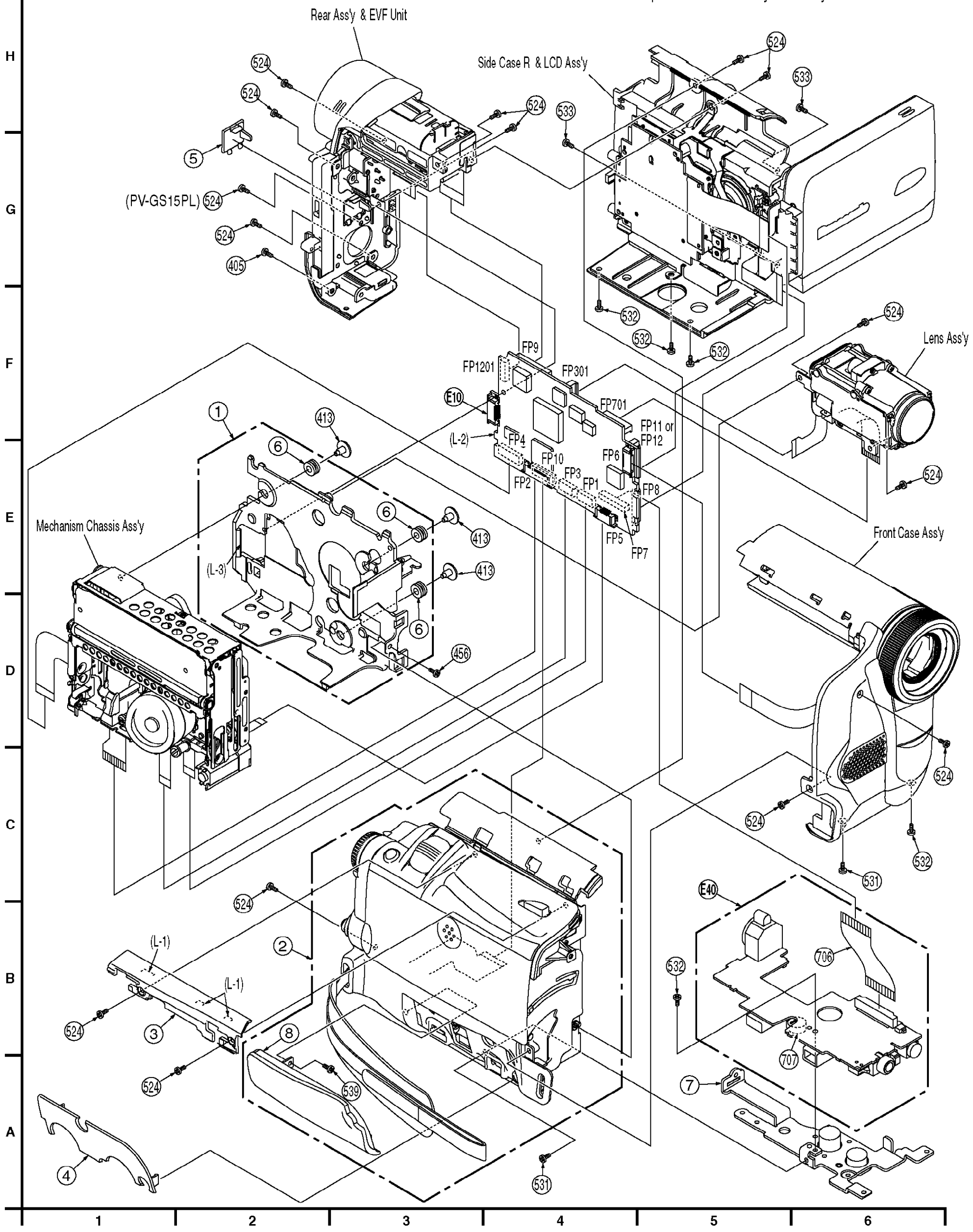
12. EXPLODED VIEWS

12.1. MAIN PARTS SECTION

❶ MAIN PARTS SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⁝‐‐⁝ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly/Assembly Procedures" section.



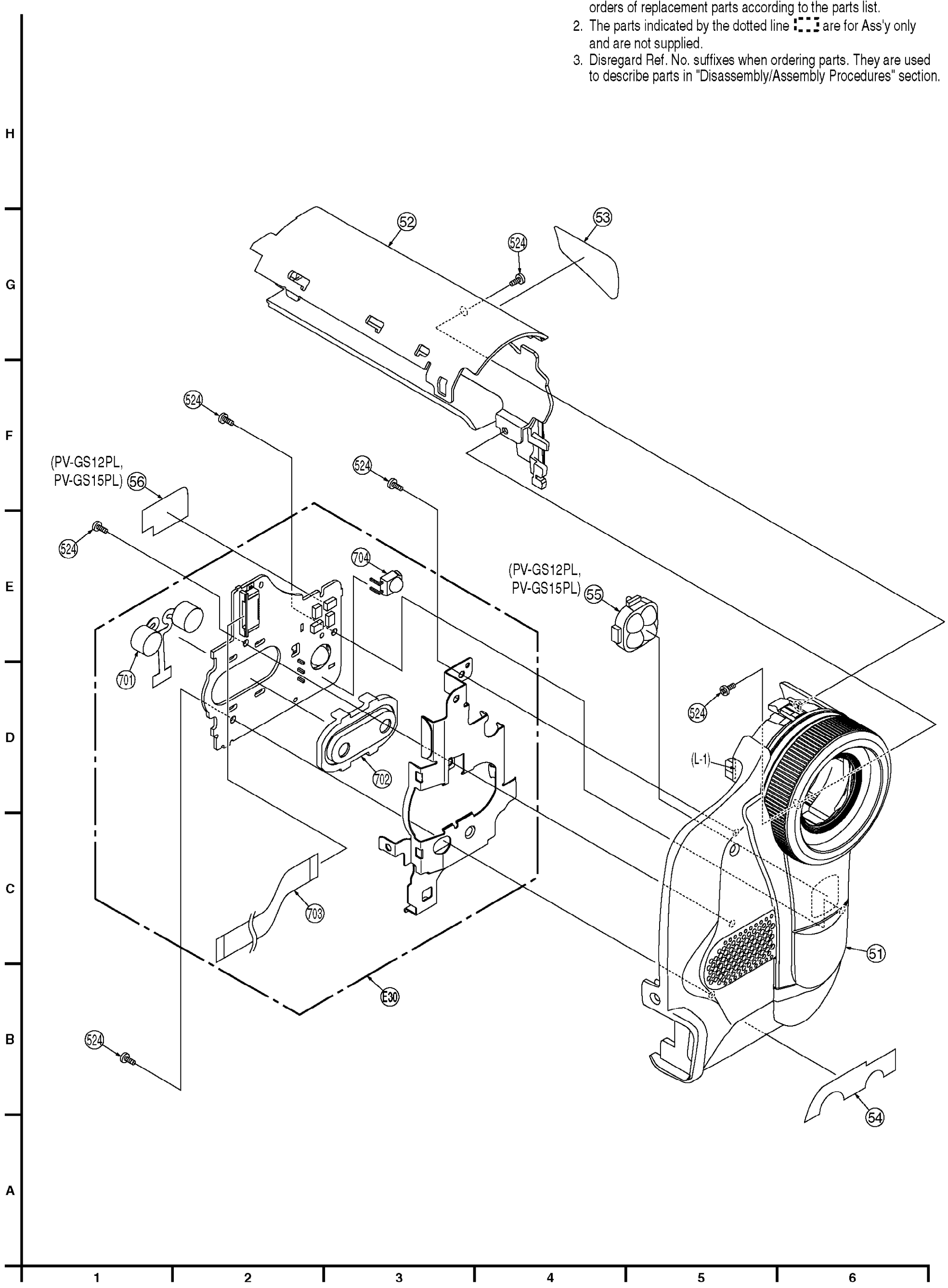
Rear Ass'y & EVF Unit
Side Case R & LCD Ass'y
Lens Ass'y
Front Case Ass'y
Mechanism Chassis Ass'y
(PV-GS15PL)
524
533
5
405
532
531
539
413
456
6
1
2
3
4
7
8
706
707
E10
E40
(L-1)
(L-2)
(L-3)
FP9
FP1201
FP301
FP701
FP11 or
FP12
FP4
FP10
FP6
FP3
FP2
FP1
FP8
FP5
FP7
H
G
F
E
D
C
B
A
1
2
3
4
5
6

12.2. FRONT CASE SECTION

❷ FRONT CASE SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⁝‐‐⁝ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly/Assembly Procedures" section.

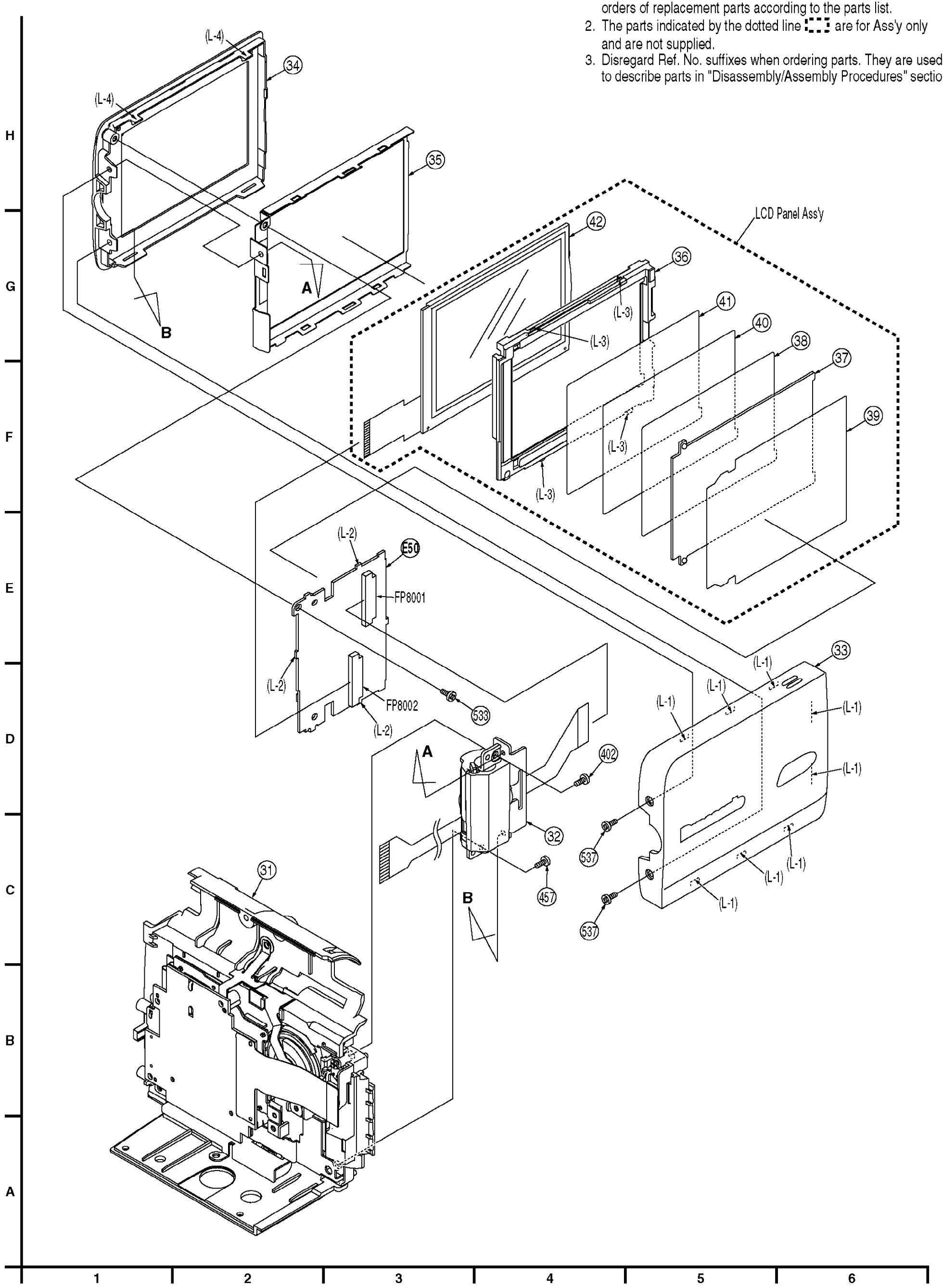

H
G
F
E
D
C
B
A
1
2
3
4
5
6
52
53
524
524
524
524
524
524
(PV-GS12PL, PV-GS15PL) 56
(PV-GS12PL, PV-GS15PL) 55
704
701
702
703
E30
(L-1)
51
54

12.3. SIDE CASE AND LCD SECTION

❸ SIDE CASE R AND LCD SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⁝⁝⁝ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly/Assembly Procedures" section.



(L-4)
34
(L-4)
35
A
B
LCD Panel Ass'y
42
36
(L-3)
(L-3)
41
40
38
37
39
(L-3)
(L-3)
(L-2)
E50
FP8001
(L-2)
FP8002
(L-2)
533
A
402
32
537
457
B
537
31
33
(L-1)
(L-1)
(L-1)
(L-1)
(L-1)
(L-1)
(L-1)
(L-1)
H
G
F
E
D
C
B
A
1
2
3
4
5
6

12.4. CCD AND LENS SECTION

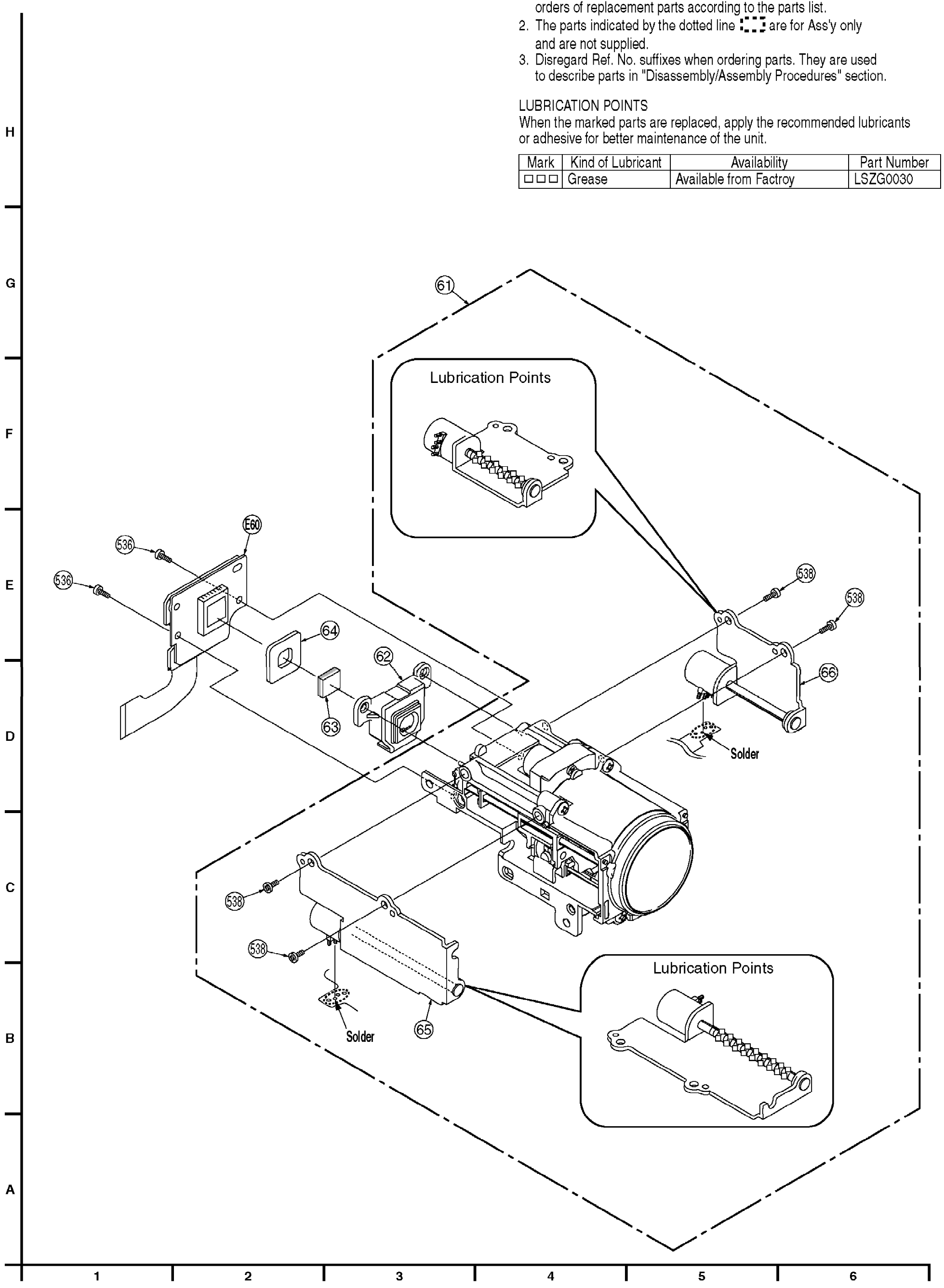
❹ CCD AND LENS SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⁝⁝ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly/Assembly Procedures" section.

LUBRICATION POINTS
When the marked parts are replaced, apply the recommended lubricants or adhesive for better maintenance of the unit.

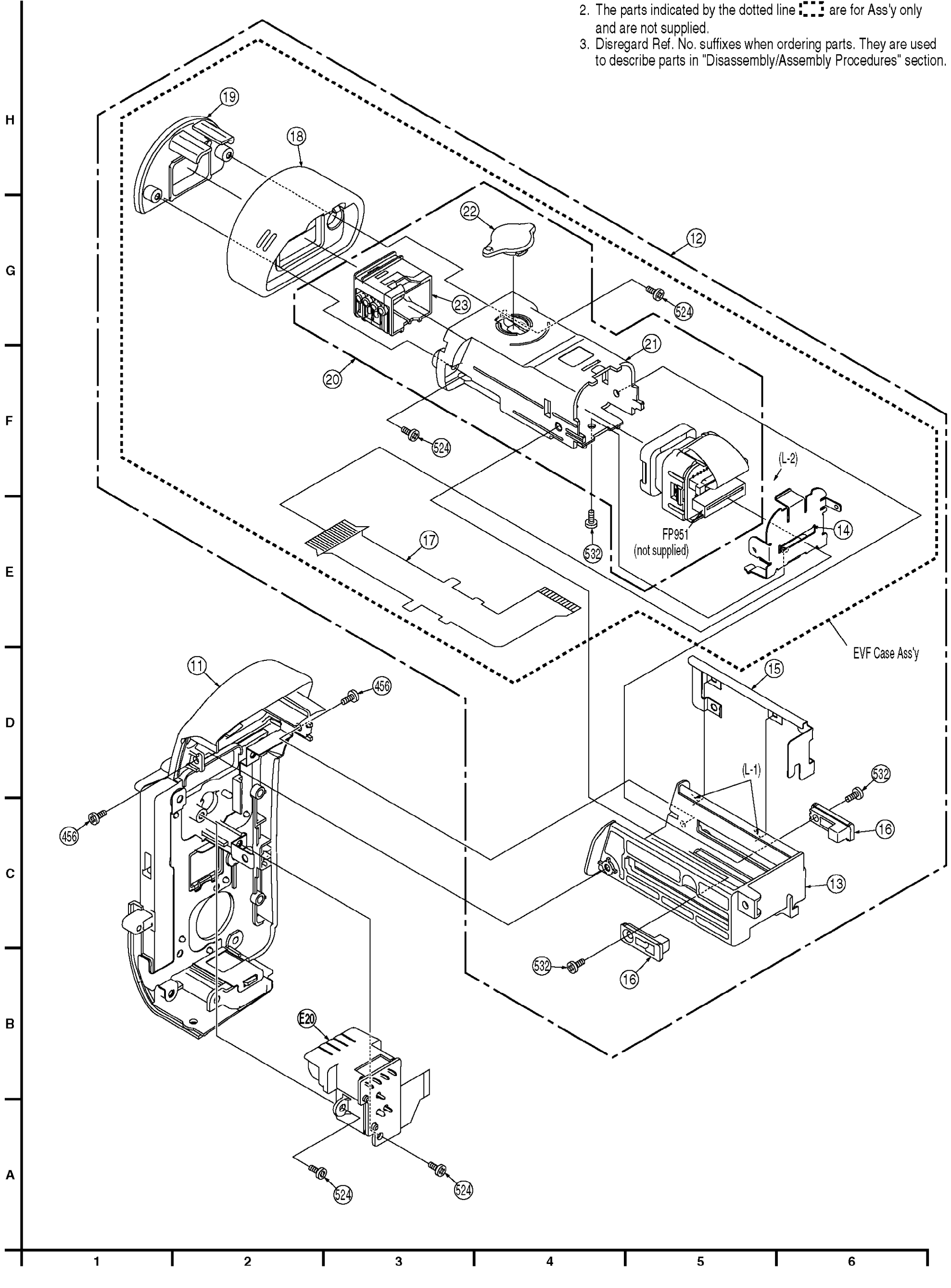
Mark	Kind of Lubricant	Availability	Part Number
□□□	Grease	Available from Factroy	LSZG0030


H
G
F
E
D
C
B
A
1
2
3
4
5
6
61
Lubrication Points
E60
536
536
538
538
64
62
66
63
Solder
538
538
Lubrication Points
Solder
65

12.5. REAR AND EVF SECTION

❺ REAR AND EVF SECTION

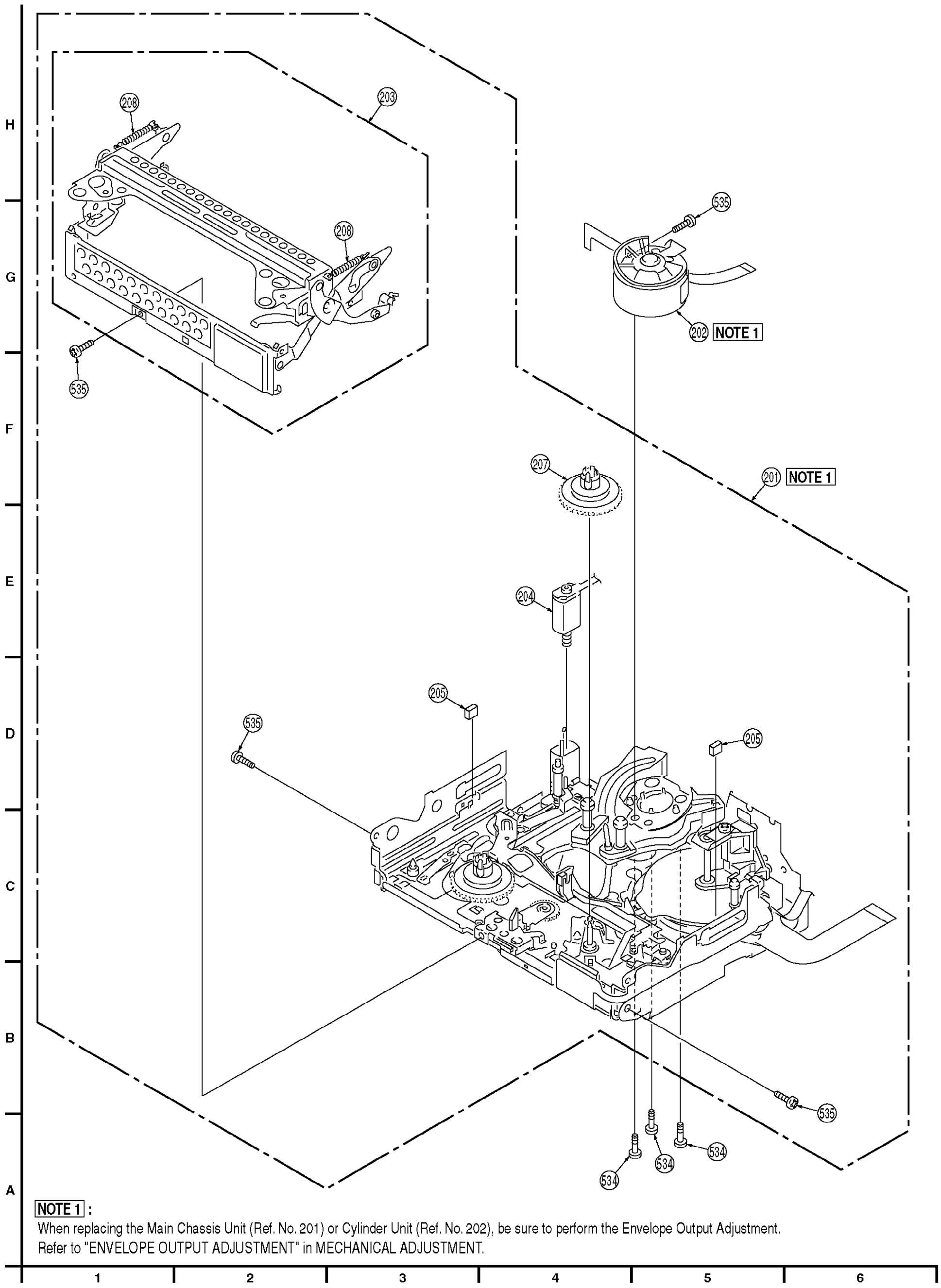
Note:
1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⬚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly/Assembly Procedures" section.



⑲
⑱
㉒
⑫
㉓
524
㉑
⑳
524
(L-2)
⑭
FP951
(not supplied)
532
⑰
EVF Case Ass'y
⑮
⑪
456
456
(L-1)
532
⑯
⑬
532
⑯
E20
524
524
H
G
F
E
D
C
B
A
1
2
3
4
5
6

12.6. MECHANISM SECTION

❻ MECHANISM SECTION


208
203
208
535
535
202 NOTE 1
207
201 NOTE 1
204
205
535
205
535
534
534
534
H
G
F
E
D
C
B
A
1
2
3
4
5
6

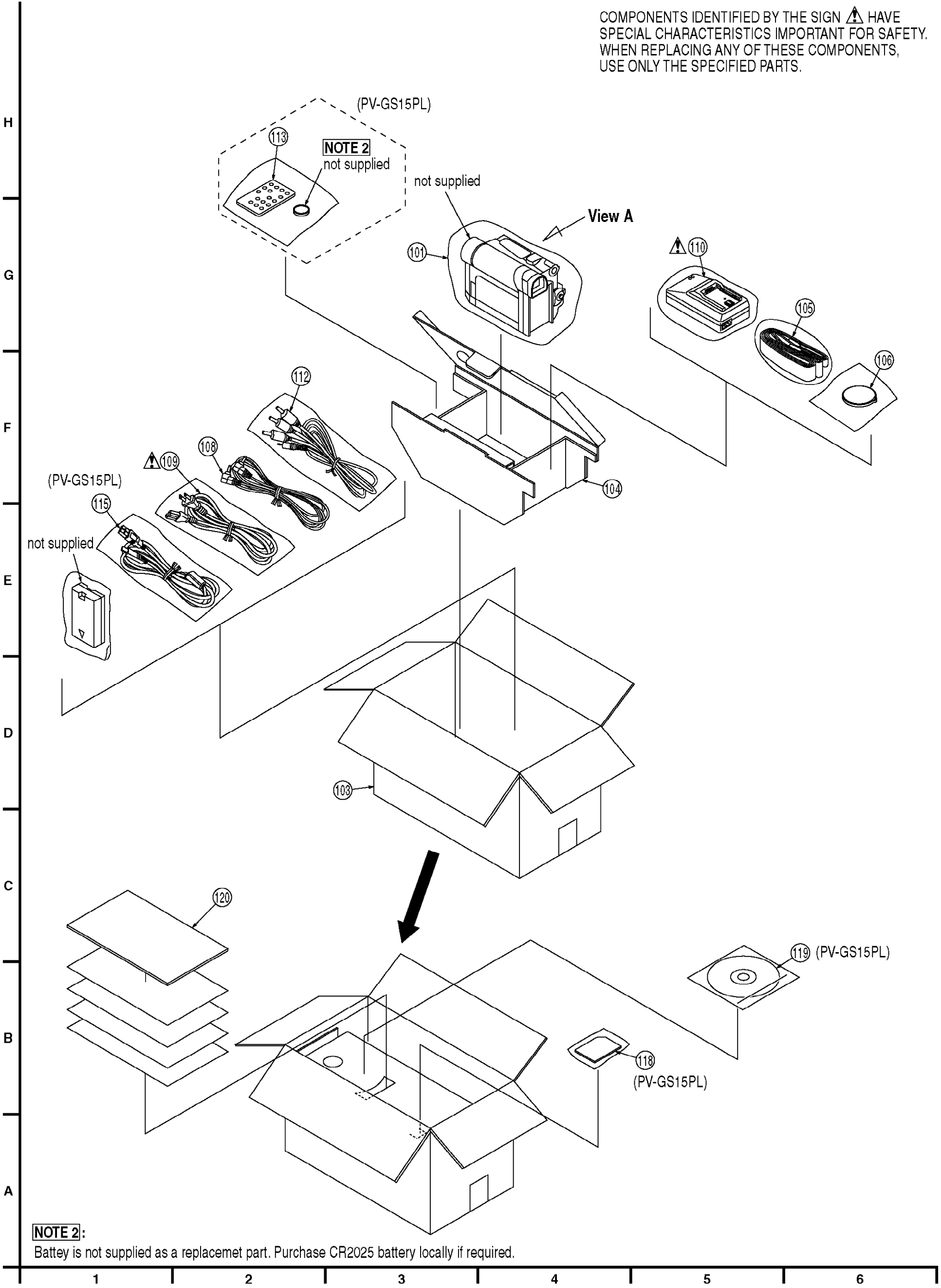
NOTE 1 :

When replacing the Main Chassis Unit (Ref. No. 201) or Cylinder Unit (Ref. No. 202), be sure to perform the Envelope Output Adjustment.
Refer to "ENVELOPE OUTPUT ADJUSTMENT" in MECHANICAL ADJUSTMENT.

12.7. PACKING PARTS AND ACCESSORIES SECTION

❼ PACKING PARTS AND ACCESSORIES SECTION

IMPORTANT SAFTY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.


H
G
F
E
D
C
B
A
(PV-GS15PL)
113
NOTE 2
not supplied
not supplied
View A
101
⚠110
105
106
112
108
⚠109
(PV-GS15PL)
115
not supplied
104
103
120
119 (PV-GS15PL)
118
(PV-GS15PL)
1
2
3
4
5
6

NOTE 2:
Battey is not supplied as a replacemet part. Purchase CR2025 battery locally if required.

13. REPLACEMENT PARTS LISTS

BEFORE REPLACING PARTS, READ THE FOLLOWING:

1. Use only original replacement parts:

To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list.

2. IMPORTANT SAFETY NOTICE
   Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components, use only the specified parts.

3. Definition of Parts supplier:
   A. Parts with mark "SPC" in the Remarks column are supplied from Spare Parts Center of Panasonic AVC Company.
   B. Parts without mark in the Remarks column are supplied from MKE.

4. Parts whose Ref. Nos. are the same are interchangeable as replacement parts. Any of these parts may be ordered and used as a replacement part.

5. Unless otherwise specified;
   All resistors are in Ω, K = 1,000 Ω, M = 1,000 kΩ.

6. Abbreviation
   RTL: Retention Time Limited
   This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.
   NR: Non Repairable Board Ass'y
   MGF CHIP: Metal Glaze Film Chip
   C CHIP: Ceramic Chip
   COMPLX CMP: Complex Component
   W FLMPRF: Wirewound Flameproof
   C.B.A.: Circuit Board Assembly
   P.C.B.: Printed Circuit Board
   E.S.D.: Electrostatically Sensitive Devices
   CSP: Chip Size Package

13.1. MECHANICAL REPLACEMENT PARTS LIST

Definition of Parts supplier:

1. Parts with mark "SPC" in the Remarks column are supplied from Spare Parts Center of Panasonic AVC Company.
2. Parts without mark in the Remarks column are supplied from MKE.

Notes:

Supply of CD-ROM, in accordance with license protection, is allowable as replacement parts only for customers who accidentally damaged or lost their own.

MECHANICAL REPLACEMENT PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANICAL REPLACEMENT PARTS	
1	LSYK1325	MECHA BASE PLATE UNIT	
2	LSYK1306	SIDE CASE L UNIT,ABS RESIN	PV-GS9PL
2	LSYK1307	SIDE CASE L UNIT,ABS RESIN	PV-GS12PL,PV-GS15PL
3	LSMD0800	TOP PIECE	
4	LSKM1026	POST COVER	
5	LSKF0559	EVR COVER	
6	LSMG0140	MECHA DAMPER RUBBER	
7	LSXA0555	BOTTOM ANGLE UNIT	
8	LSKF0576	JACK COVER	
11	LSYK1300	REAR CASE UNIT,ABS RESIN	PV-GS9PL,PV-GS12PL
11	LSYK1301	REAR CASE UNIT,ABS RESIN	PV-GS15PL
12	LSYK1292	ELECTRICAL VIEWFINDER UNIT	RTL PV-GS9PL,PV-GS12PL
12	LSYK1293	ELECTRICAL VIEWFINDER UNIT	RTL PV-GS15PL
13	LSKM1023	EVF BASE FRAME	
14	LSMA0721	EVF SPRING	
15	LSSC0693	EVF EARTH PLATE,STEEL	
16	LSMD0799	EVF SLIDE PIECE	
17	LSJB8274	EVF FLEXIBLE PRINTED CIRCUIT	
18	LSMG0138	EYE CAP	
19	LSMD0796	EYE CAP PIECE	
20	LSYK1296	EVF CASE 1 UNIT	PV-GS9PL,PV-GS12PL
20	LSYK1297	EVF CASE 1 UNIT	PV-GS15PL
21	LSKM1024	EVF CASE,ABS RESIN	
22	LSGT0068	EYE SIGHT LEVER	
23	LSYK1381	EVF LENS UNIT	
31	LSYK1345	SIDE CASE R UNIT,ABS RESIN	PV-GS9PL
31	LSYK1346	SIDE CASE R UNIT,ABS RESIN	PV-GS12PL
31	LSYK1347	SIDE CASE R UNIT,ABS RESIN	PV-GS15PL
32	LSXY0587	SHAFT CASE UNIT	PV-GS9PL,PV-GS12PL
32	LSXY0588	SHAFT CASE UNIT	PV-GS15PL
33	LSYK1326	LCD CASE A UNIT,ABS RESIN	PV-GS9PL
33	LSYK1327	LCD CASE A UNIT,ABS RESIN	PV-GS12PL
33	LSYK1328	LCD CASE A UNIT,ABS RESIN	PV-GS15PL
34	LSKM1022	LCD CASE B,ABS RESIN	
35	LSXY0573	PANEL SHIELD CASE UNIT	
36	LSXY0578	PANEL HOLDER UNIT	
37	LSGL0403	LEAD LIGHT PANEL	
38	LSGL0404	DIFFUSION SHEET	
39	LSGL0405	REFLECT SHEET	
40	LSGL0406	BEF SHEET	
41	LSGL0407	DBEF SHEET	

Ref. No.	Part No.	Part Name & Description	Remarks
42	L5BDDYH00014	LIQUID CRYSTAL DISPLAY PANEL	
51	LSYK1333	FRONT UNIT	PV-GS9PL
51	LSYK1364	FRONT UNIT	PV-GS12PL
51	LSYK1335	FRONT UNIT	PV-GS15PL
52	LSYK1337	TOP COVER UNIT	PV-GS12PL
52	LSYK1336	TOP COVER UNIT	PV-GS9PL
52	LSYK1338	TOP COVER UNIT	PV-GS15PL
53	LSQL1607	DECORATION LABEL	PV-GS9PL,PV-GS12PL
53	LSQL1609	DECORATION LABEL	PV-GS15PL
54	LSQL1603	JACK LABEL	PV-GS9PL,PV-GS12PL
54	LSQL1604	JACK LABEL	PV-GS15PL
55	LSFL0200	FOUR EYES LENS	PV-GS12PL,PV-GS15PL
56	LSGQ0108	LIGHT SHIELD SHEET	PV-GS12PL,PV-GS15PL
61	LSXN0031	LENS UNIT	
62	LSDW0058	FILTER HOLDER	
63	VDL1390-B	OPTICAL LOW PASS FILTER	
64	VMX3282	FILTER RUBBER	
65	L6HA66NB0001	ZOOM MOTOR UNIT	
66	L6HA66NB0002	FOCUS MOTOR UNIT	
101	VPF1129	BAG,POLYETHYLENE	
103	LSPG1756	PACKING CASE,PAPER	PV-GS9PL
103	LSPG1713	PACKING CASE,PAPER	PV-GS12PL
103	LSPG1672	PACKING CASE,PAPER	PV-GS15PL
104	LSTG1301	DVC PACKING	PV-GS9PL
104	LSTG1300	DVC PACKING	PV-GS12PL,PV-GS15PL
105	LSFC0018	SHOULDER BELT	
106	LSYF0547	LENS CAP UNIT	
108	LSJA0288	DC CABLE W/PLUG	
109	K2CB2CB00014	AC CORD W/PLUG	⚠
110	PV-DAC11-D	AC ADAPTOR UNIT	⚠
112	K2KC4CB00014	AUDIO VIDEO CABLE W/PLUG	
113	LSSQ0411	INFRARED REMOTE CONTROL UNIT	PV-GS15PL
115	K1HA05CD0006	USB CABLE W/PLUG	PV-GS15PL
118	RP-SD008BMK0	SD CARD	PV-GS15PL
119	LSFT0575	APPLICATION SOFTWARE CD-ROM	See "Notes" / PV-GS15PL
120	LSQT0837-A	INSTRUCTION BOOK	
201	VXY1804Z1	MAIN CHASSIS UNIT	
202	VEG1659-M	CYLINDER UNIT	
203	VXA7624	CASSETTE UP UNIT	SPC
204	VEM0783	LOADING MOTOR UNIT	SPC
205	PN166.VT	PHOTO TRANSISTOR	SPC
207	VXR0401	T-REEL MOTOR	SPC
208	VMB3766	CASSETTE UP SPRING	SPC
402	XQN2+BJ4FXK	SCREW,STEEL	
405	XQN16+B3FZ	SCREW,STEEL	
413	LSHD0051	SCREW,STEEL	
456	XQN16+BJ3FN	SCREW,STEEL	
457	XQN2+BF5FN	SCREW,STEEL	
524	XQN16+BJ4FXK	SCREW,STEEL	

Ref. No.	Part No.	Part Name & Description	Remarks
531	XQN16+BF4FXK	SCREW,STEEL	
532	XQN16+BF4FN	SCREW,STEEL	
533	XQN16+BJ4FN	SCREW,STEEL	
534	VHD1585	SCREW,STEEL	
535	XQN14+B2FN	SCREW,STEEL	
536	XQN16+AJ4FN	SCREW,STEEL	
537	XQN16+BF3FN	SCREW,STEEL	
538	LSHD0095	SCREW,STEEL	
539	XQN16+BJ4	SCREW,STEEL	
701	LSEK0543	ELECTRIC CONDENSER MICROPHONE UNIT	
702	LSMG0136	MIC DAMPER	
703	LSJW0057	FLEXIBLE FLAT CABLE W/OUT PLUG,5V	
704	B3RAB0000024	INFRARED RECEIVER	
706	LSJW0059	JACK FLEXIBLE FLAT CABLE W/OUT PLUG,5V	
707	ML-621S/F9D	BATTERY	
E10	LSEP8262A1	MAIN C.B.A.	RTL PV-GS9PL
E10	LSEP8262B1	MAIN C.B.A.	RTL PV-GS12PL
E10	LSEP8262C1	MAIN C.B.A.	RTL PV-GS15PL
E20	LSEP8263A1	REAR C.B.A. NR	
E30	LSEP8264A1	FRONT C.B.A.	RTL PV-GS9PL
E30	LSEP8264B1	FRONT C.B.A.	RTL PV-GS12PL,PV-GS15PL
E40	LSEP8265A1	JACK C.B.A.	RTL PV-GS9PL,PV-GS12PL
E40	LSEP8265C1	JACK C.B.A.	RTL PV-GS15PL
E50	LSEP8267A1	LIQUID CRYSTAL DISPLAY C.B.A.	RTL
E60	LSEQ0720	CCD C.B.A. NR	

SERVICE FIXTURES AND TOOLS

Ref. No.	Part No.	Part Name & Description	Remarks
	VFM3010EDS	COLOR BAR STANDARD TAPE	SPC
	VFK1451	DVC HEAD CLEANING TAPE	SPC
	LSVQ0028	PLIER FOR NON ZIF CONNECTOR	
	VFKW0124A	EXTENSION CABLE 14P	
	VUVS0012	EXTENSION CABLE 22P	
	LSUA0017	EXTENSION CABLE 18P	
	LSUA0016	EXTENSION CABLE 10P	
	VUVS0007	EXTENSION CABLE 12P	
	VUVS0015	EXTENSION CABLE 28P	
	VUVS0019	EXTENSION CABLE 8P	
	LSUA0021	EXTENSION CABLE 26P	
	LSZG0030	GREASE	
	VFK1164LBX1	LIGHT BOX	SPC
	VFK1164TCM02	INFINITY LENS (WITH FOCUS CHART)	SPC
	VFK1164TAR58	ATTACHMENT RING (58mm)	SPC
	VFK1164TAR55	ATTACHMENT RING (55mm)	SPC
	VFK1164TAR52	ATTACHMENT RING (52mm)	SPC
	VFK1164TAR49	ATTACHMENT RING (49mm)	SPC
	VFK1164TAR46	ATTACHMENT RING (46mm)	SPC
	VFK1164TAR43	ATTACHMENT RING (43mm)	SPC
	VFK1164TAR37	ATTACHMENT RING (37mm)	SPC

Ref. No.	Part No.	Part Name & Description	Remarks
	VFK1164TAR3A	ATTACHMENT RING (30.5mm)	SPC
	VFK1164TAR27	ATTACHMENT RING (27mm)	SPC
	VFK1164TFCT2	COLOR CONVERSION FILTER (C14)	SPC
	VFK1899	POST HEIGHT ADJUSTMENT FIXTURE	SPC
	LSUP0007	INTERFACE BOARD FOR ELECTRICAL ADJUSTMENT	
	VFK1898	CONNECTION ADAPTOR	SPC
	VFK1897	EVR CONNECTOR BOARD	SPC
	VFK1309	EVR CONNECTOR BOARD	SPC
	VFK1317	FLAT CABLE 30P	SPC
	VFK1164TFWC2	WHITE CHART	SPC
	VFK1164TFCB2	COLOR BAR CHART	SPC
	VFK1164TFGS2	GRAY SCALE CHART	SPC

13.2. ELECTRICAL REPLACEMENT PARTS LIST

Definition of Parts supplier:

1. All parts are supplied from MKE.

PRINTED CIRCUIT BOARD ASSEMBLY

Ref. No.	Part No.	Part Name & Description	Remarks
E10	LSEP8262A1	MAIN C.B.A.	E.S.D. RTL PV-GS9PL
E10	LSEP8262B1	MAIN C.B.A.	E.S.D. RTL PV-GS12PL
E10	LSEP8262C1	MAIN C.B.A.	E.S.D. RTL PV-GS15PL
E20	LSEP8263A1	REAR C.B.A. NR	
E30	LSEP8264A1	FRONT C.B.A.	RTL PV-GS9PL
E30	LSEP8264B1	FRONT C.B.A.	RTL PV-GS12PL,PV-GS15PL
E40	LSEP8265A1	JACK C.B.A.	RTL PV-GS9PL,PV-GS12PL
E40	LSEP8265C1	JACK C.B.A.	RTL PV-GS15PL
E50	LSEP8267A1	LIQUID CRYSTAL DISPLAY C.B.A.	RTL
E60	LSEQ0720	CCD C.B.A. NR	

13.2.1. MAIN C.B.A

INTEGRATED CIRCUITS

Ref. No.	Part No.	Part Name & Description	Remarks
IC301	C0CBCBB00005	IC, LINEAR	
IC302	MN52A4	IC, LOGIC	E.S.D.
IC303	H1A3605B0003	CRYSTAL OSCILLATOR	
IC304	MN31121SA-E1	IC, LOGIC	E.S.D.
IC501	C1AB00001725	IC, LINEAR	
IC701	C1AB00001877	IC, LINEAR	
IC901	C1AB00001842	IC, LINEAR	
IC1001	C0DBAZZ00064	IC, LINEAR	
IC1002	C0CBCBC00060	IC, LINEAR	
IC1003	C0CBCAC00089	IC, LINEAR	
IC2001	C1AB00001752	IC, LINEAR	
IC2002	C0ABAA000046	IC, LINEAR	
IC3001	C1AB00001962	IC, LOGIC	E.S.D. CSP
IC3101	C1AB00001894	IC, LOGIC	E.S.D.
IC3201	C1AB00001695	IC, LOGIC	E.S.D. CSP
IC5001	AN3732FJMEFV	IC, LINEAR	
IC6001	LSSK0045	IC, 32BIT MICROCONTROLLER / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE A)	E.S.D. CSP
IC6001	C2DBMK000022	IC, 32BIT MICROCONTROLLER / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE B)	E.S.D. CSP
IC6002	C3EBGG000013	IC, 16K EEP ROM	E.S.D.
IC6002	C3EBGG000016	IC, 16K EEP ROM	E.S.D.
IC6003	C1ZBZ0002438	IC, LOGIC	E.S.D.
IC6004	C1AB00001927	IC, LOGIC	E.S.D.
IC6005	C0CBCBC00061	IC, CMOS STANDARD LOGIC	E.S.D.
IC6006	C0CBCAC00129	IC, LINEAR / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE A)	
IC6006	C0CBCAC00144	IC, LINEAR / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE B)	
IC6007	C0CBAAA00016	IC, LINEAR	
IC6008	C0EBD0000281	IC, LINEAR / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE A)	
IC6008	C0EBB0000135	IC, LINEAR / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE B)	
IC6009	LSSK0047	IC, 2M FLASH MEMORY	E.S.D.

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q701	B1ADMB000004	TRANSISTOR SI PNP CHIP	
Q1001	UNR9112J08	TRANSISTOR SI PNP CHIP	
Q1001	B1GDCFLL0019	TRANSISTOR SI PNP CHIP	
Q1003	UNR9115J08	TRANSISTOR SI PNP CHIP	
Q1003	B1GDCFJA0015	TRANSISTOR SI PNP CHIP	
Q1004	B1ZBZ0000038	TRANSISTOR SI PNP CHIP	
Q1005	B1ZBZ0000038	TRANSISTOR SI PNP CHIP	
Q1006	B1ZBZ0000038	TRANSISTOR SI PNP CHIP	
Q1007	B1DFCG000011	TRANSISTOR FET	
Q1008	XN09D6100L	TRANSISTOR SI CHIP	
Q1009	B1ZBZ0000040	TRANSISTOR SI PNP CHIP	
Q1013	2SC559200L	TRANSISTOR SI NPN CHIP	
Q1013	B1ABPB000001	TRANSISTOR SI PNP CHIP	
Q1014	2SB1462J08	TRANSISTOR SI PNP CHIP	
Q1014	B1ADCF000072	TRANSISTOR SI PNP CHIP	
Q1015	XP0450100L	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q1016	2SD1819A0L	TRANSISTOR SI NPN CHIP	
Q1016	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q1018	2SB1462J08	TRANSISTOR SI PNP CHIP	
Q1018	B1ADCF000072	TRANSISTOR SI PNP CHIP	
Q1019	2SB1218A0L	TRANSISTOR SI PNP CHIP	
Q1019	B1ADCF000063	TRANSISTOR SI PNP CHIP	
Q1019	B1ADCF000075	TRANSISTOR SI PNP CHIP	
Q1022	2SD2216J08	TRANSISTOR SI NPN CHIP	
Q1022	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q1023	B1ABCF000098	TRANSISTOR SI NPN CHIP	
Q1023	B1ABCF000099	TRANSISTOR SI NPN CHIP	
Q1024	2SD2216J08	TRANSISTOR SI NPN CHIP	
Q1024	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q1025	2SD2216J08	TRANSISTOR SI NPN CHIP	
Q1025	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q1026	XP0431400L	TRANSISTOR SI NPN CHIP	
Q1027	B1ABCF000098	TRANSISTOR SI NPN CHIP	
Q1027	B1ABCF000099	TRANSISTOR SI NPN CHIP	
Q1028	2SD262300L	TRANSISTOR SI NPN CHIP	
Q1029	2SD262300L	TRANSISTOR SI NPN CHIP	
Q1030	2SD2216J08	TRANSISTOR SI NPN CHIP	
Q1030	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q1031	UNR921TJ08	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q1032	UNR9114J08	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q1032	B1GDCFJN0017	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q1033	UNR911TJ08	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q1033	B1GDCFLM0005	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q1034	UNR9213J08	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q1034	B1GBCFNN0029	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q1034	B1GBCFNN0030	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q1035	UNR921TJ08	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q3001	UNR9111J08	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q3001	B1GDCFJJ0027	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q6001	UNR921FJ08	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q6002	UNR9213J08	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q6002	B1GBCFNN0029	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q6002	B1GBCFNN0030	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q6003	2SD1820A0L	TRANSISTOR SI NPN CHIP	

Ref. No.	Part No.	Part Name & Description	Remarks
Q6004	2SD1819A0L	TRANSISTOR SI NPN CHIP	
Q6004	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6005	2SB09700RL	TRANSISTOR SI PNP CHIP	
Q6006	B1CHHD000003	TRANSISTOR FET	
Q6007	2SD2216J08	TRANSISTOR SI NPN CHIP	
Q6007	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q6008	UNR921TJ08	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q6008	B1GBCFLN0003	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q6009	UNR921EJ08	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q6010	2SB09700RL	TRANSISTOR SI PNP CHIP	
Q6011	UNR9115J08	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q6011	B1GDCFJA0015	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q6012	UNR9115J08	TRANSISTOR COMPLX CMP SI NPN CHIP	PV-GS12PL,PV-GS15PL
Q6012	B1GDCFJA0015	TRANSISTOR COMPLX CMP SI NPN CHIP	PV-GS12PL,PV-GS15PL
Q6013	UNR9115J08	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q6013	B1GDCFJA0015	TRANSISTOR COMPLX CMP SI NPN CHIP	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D301	MA2S111008	DIODE SI CHIP	
D301	B0ACCK000003	DIODE SI CHIP	
D301	MA2S11100L	DIODE SI CHIP	
D302	MA2S728008	DIODE SI CHIP	
D302	B0JCDD000002	DIODE SI CHIP	
D302	MA2S72800L	DIODE SI CHIP	
D1002	MA2J111008	DIODE SI CHIP	
D1002	B0ACCK000005	DIODE SI CHIP	
D1002	MA2J11100L	DIODE SI CHIP	
D1003	MA2J111008	DIODE SI CHIP	
D1003	B0ACCK000005	DIODE SI CHIP	
D1003	MA2J11100L	DIODE SI CHIP	
D1005	MA2S111008	DIODE SI CHIP	
D1005	B0ACCK000003	DIODE SI CHIP	
D1005	MA2S11100L	DIODE SI CHIP	
D1006	MAZ80750ML	DIODE SI CHIP	
D1007	MAZ80620HL	DIODE ZENER CHIP 6.2V	
D1009	MA2S111008	DIODE SI CHIP	
D1009	B0ACCK000003	DIODE SI CHIP	
D1009	MA2S11100L	DIODE SI CHIP	
D1010	MAZ81000HL	DIODE ZENER CHIP 10V	
D1011	MAZ81300ML	DIODE ZENER CHIP 13V	
D1012	MA2S111008	DIODE SI CHIP	
D1012	B0ACCK000003	DIODE SI CHIP	
D1012	MA2S11100L	DIODE SI CHIP	
D1013	MA2S111008	DIODE SI CHIP	
D1013	B0ACCK000003	DIODE SI CHIP	
D1013	MA2S11100L	DIODE SI CHIP	
D1014	MA2S111008	DIODE SI CHIP	
D1014	B0ACCK000003	DIODE SI CHIP	
D1014	MA2S11100L	DIODE SI CHIP	
D2001	MA3S13300L	DIODE SI CHIP	

Ref. No.	Part No.	Part Name & Description	Remarks
D3101	MA2SD24008	DIODE SI CHIP	PV-GS15PL
D6001	MA2S728008	DIODE SI CHIP	
D6001	B0JCDD000002	DIODE SI CHIP	
D6001	MA2S72800L	DIODE SI CHIP	
D6002	MA2J111008	DIODE SI CHIP	
D6003	B0JCDD000002	DIODE SI CHIP	
D6005	MA2S728008	DIODE SI CHIP	
D6005	B0JCDD000002	DIODE SI CHIP	
D6005	MA2S72800L	DIODE SI CHIP	
D6006	MA3J14700L	DIODE SI CHIP	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R302	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R304	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R305	ERJ2GEJ221X	MGF CHIP 1/16W 220	
R306	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R307	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R308	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R309	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R313	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R314	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R315	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R316	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R501	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R504	ERJ2GEJ333X	MGF CHIP 1/16W 33K	
R702	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R704	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R705	D0GA102JA015	MGF CHIP 1/16W 1K	
R706	ERJ2GEJ393X	MGF CHIP 1/16W 39K	
R707	ERJ2GEJ223X	MGF CHIP 1/16W 22K	
R708	ERJ2GEJ393X	MGF CHIP 1/16W 39K	
R709	ERJ2GEJ184X	MGF CHIP 1/16W 180K	
R710	ERJ2GEJ153X	MGF CHIP 1/16W 15K	
R711	ERJ2GEJ223X	MGF CHIP 1/16W 22K	
R712	ERJ2GEJ334X	MGF CHIP 1/16W 330K	
R713	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R714	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R715	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R716	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R718	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R719	ERJ2GEJ334X	MGF CHIP 1/16W 330K	
R721	ERJ2GEJ684X	MGF CHIP 1/16W 680K	
R722	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R723	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R724	ERJ2GEJ151X	MGF CHIP 1/16W 150	
R725	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R726	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R902	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R906	D0GA102JA015	MGF CHIP 1/16W 1K	
R907	D0GA102JA015	MGF CHIP 1/16W 1K	
R908	D0GA102JA015	MGF CHIP 1/16W 1K	
R909	D0GA102JA015	MGF CHIP 1/16W 1K	

Ref. No.	Part No.	Part Name & Description	Remarks
R911	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R914	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R920	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R921	ERJ2GEJ560X	MGF CHIP 1/16W 56	
R924	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R925	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R926	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R927	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R928	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1001	ERJ2GEJ153X	MGF CHIP 1/16W 15K	
R1002	ERJ2GEJ223X	MGF CHIP 1/16W 22K	
R1003	ERJ2GEJ123X	MGF CHIP 1/16W 12K	
R1004	ERJ2GEJ223X	MGF CHIP 1/16W 22K	
R1005	ERJ2GEJ123X	MGF CHIP 1/16W 12K	
R1006	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R1007	ERA3YED822V	MGF CHIP 1/8W 8.2K	
R1008	ERJ2GEJ153X	MGF CHIP 1/16W 15K	
R1009	ERJ2GEJ223X	MGF CHIP 1/16W 22K	
R1010	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1011	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1012	ERJ2GEJ471X	MGF CHIP 1/16W 470	
R1013	ERJ2GEJ471X	MGF CHIP 1/16W 470	
R1014	ERJ2GEJ151X	MGF CHIP 1/16W 150	
R1015	ERJ2GEJ471X	MGF CHIP 1/16W 470	
R1017	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1024	D0HA912ZA001	MGF CHIP 1/16W 9.1K	
R1027	D0HA302ZA001	MGF CHIP 1/16W 3K	
R1028	D0HA330ZA002	MGF CHIP 1/16W 33	
R1030	D0HA392ZA001	MGF CHIP 1/16W 3.9K	
R1033	D0HA302ZA001	MGF CHIP 1/16W 3K	
R1034	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R1036	D0HA152ZA001	MGF CHIP 1/16W 1.5K	
R1039	D0HA302ZA001	MGF CHIP 1/16W 3K	
R1040	D0HA330ZA002	MGF CHIP 1/16W 33	
R1042	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R1043	D0HA273ZA001	MGF CHIP 1/16W 27K	
R1046	D0HA302ZA001	MGF CHIP 1/16W 3K	
R1047	D0HA820ZA002	MGF CHIP 1/16W 82	
R1049	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R1050	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R1051	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1052	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R1053	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1054	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1055	ERJ2GEJ824X	MGF CHIP 1/16W 820K	
R1056	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R1057	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R1058	ERJ2GEJ223X	MGF CHIP 1/16W 22K	
R1059	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R1060	ERJ2GEJ221X	MGF CHIP 1/16W 220	
R1061	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R1063	ERJ2GEJ123X	MGF CHIP 1/16W 12K	
R1065	ERJ2GEJ123X	MGF CHIP 1/16W 12K	
R1067	ERJ2GEJ273X	MGF CHIP 1/16W 27K	

Ref. No.	Part No.	Part Name & Description	Remarks
R1068	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R1069	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1070	D0GA102JA015	MGF CHIP 1/16W 1K	
R1071	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R1072	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R1073	D0HA102ZA001	MGF CHIP 1/16W 1K	
R1074	ERJ2GEJ221X	MGF CHIP 1/16W 220	
R1075	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R1076	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R1077	D0HA302ZA001	MGF CHIP 1/16W 3K	
R1081	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R1082	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R1086	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R1087	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R2001	D1BDR2700001	MGF CHIP 1/8W 0.27	
R2002	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R2003	ERJ8GEYJR27V	MGF CHIP 1/8W 0.27	
R2004	ERJ2GEJ273X	MGF CHIP 1/16W 27K	
R2005	D0GA242JA015	MGF CHIP 1/16W 2.4K	
R2006	ERJ2GEJ153X	MGF CHIP 1/16W 15K	
R2007	ERJ2RHD273X	MGF CHIP 1/16W 27K	
R2008	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R2009	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R2010	D0GA102JA015	MGF CHIP 1/16W 1K	
R2011	ERJ2GEJ823X	MGF CHIP 1/16W 82K	
R2012	D0GA102JA015	MGF CHIP 1/16W 1K	
R2013	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R2014	D0GA102JA015	MGF CHIP 1/16W 1K	
R2015	D0GA102JA015	MGF CHIP 1/16W 1K	
R2016	D0GA102JA015	MGF CHIP 1/16W 1K	
R2017	D0GA102JA015	MGF CHIP 1/16W 1K	
R2018	ERJ8GEYJR68V	MGF CHIP 1/8W 0.68	
R2019	ERJ2GEJ223X	MGF CHIP 1/16W 22K	
R2020	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R2021	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R2024	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R2025	ERJ2GEJ183X	MGF CHIP 1/16W 18K	
R2026	ERJ2GEJ393X	MGF CHIP 1/16W 39K	
R2027	ERJ2GEJ563X	MGF CHIP 1/16W 56K	
R2028	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R2029	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R2030	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R2031	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R2032	D0GA102JA015	MGF CHIP 1/16W 1K	
R2033	D0GA102JA015	MGF CHIP 1/16W 1K	
R2034	D0GA102JA015	MGF CHIP 1/16W 1K	
R2035	D0GA102JA015	MGF CHIP 1/16W 1K	
R2036	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R2037	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3001	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3002	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3003	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3006	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R3007	ERJ2GE0R00X	MGF CHIP 1/16W 0	

Ref. No.	Part No.	Part Name & Description	Remarks
R3008	ERJ2RHD123X	MGF CHIP 1/16W 12K	
R3009	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R3010	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R3011	ERJ2RKD560X	MGF CHIP 1/16W 56	
R3012	ERJ2RKD560X	MGF CHIP 1/16W 56	
R3013	ERJ2RKD560X	MGF CHIP 1/16W 56	
R3014	ERJ2RKD560X	MGF CHIP 1/16W 56	
R3015	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3016	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3017	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3018	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3019	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3020	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3021	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3022	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3023	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3024	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3025	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3026	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3027	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3028	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3029	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3030	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R3031	ERJ2GEJ153X	MGF CHIP 1/16W 15K	
R3032	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R3033	ERJ2GEJ123X	MGF CHIP 1/16W 12K	
R3034	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R3035	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R3036	ERJ2GEJ680X	MGF CHIP 1/16W 68	
R3037	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R3039	ERJ2GEJ223X	MGF CHIP 1/16W 22K	
R3040	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3042	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3043	D0GA152JA015	MGF CHIP 1/16W 1.5K	
R3044	ERJ2RKD270X	MGF CHIP 1/16W 27	
R3045	ERJ2RKD270X	MGF CHIP 1/16W 27	
R3071	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R3079	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3080	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3081	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3082	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3083	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3084	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3085	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3087	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3088	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3101	ERJ2GEJ680X	MGF CHIP 1/16W 68	PV-GS15PL
R3102	ERJ2GEJ680X	MGF CHIP 1/16W 68	PV-GS15PL
R3103	ERJ2GEJ680X	MGF CHIP 1/16W 68	
R3104	ERJ2RHD752X	MGF CHIP 1/16W 7.5K	PV-GS15PL
R3112	ERJ2GE0R00X	MGF CHIP 1/16W 0	PV-GS15PL
R3114	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3201	ERJ2GEJ100X	MGF CHIP 1/16W 10	
R3202	D0GA182JA015	MGF CHIP 1/16W 1.8K	

Ref. No.	Part No.	Part Name & Description	Remarks
R3203	ERJ2GEJ271X	MGF CHIP 1/16W 270	
R3204	ERJ2GEJ221X	MGF CHIP 1/16W 220	
R3205	D0GA272JA015	MGF CHIP 1/16W 2.7K	
R3206	ERJ2GEJ221X	MGF CHIP 1/16W 220	
R3207	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R3208	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R3209	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R3210	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R3211	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R3212	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R3218	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3222	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R3225	D0GA102JA015	MGF CHIP 1/16W 1K	
R3226	D0GA102JA015	MGF CHIP 1/16W 1K	
R3227	D0GA102JA015	MGF CHIP 1/16W 1K	
R3229	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3230	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3231	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R3232	D0GA102JA015	MGF CHIP 1/16W 1K	
R3233	D0GA102JA015	MGF CHIP 1/16W 1K	
R3234	D0GA102JA015	MGF CHIP 1/16W 1K	
R3513	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R4501	ERJ3GEYJ100V	MGF CHIP 1/16W 10	
R4502	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R4503	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R4504	ERJ2GEJ561X	MGF CHIP 1/16W 560	
R4505	ERJ2GEJ561X	MGF CHIP 1/16W 560	
R4510	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R4511	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R4521	ERJ2GEJ470X	MGF CHIP 1/16W 47	
R4522	ERJ2GEJ470X	MGF CHIP 1/16W 47	
R4523	ERJ2GEJ470X	MGF CHIP 1/16W 47	
R4524	ERJ2GEJ470X	MGF CHIP 1/16W 47	
R4526	ERJ2GEJ470X	MGF CHIP 1/16W 47	
R4527	ERJ2GEJ470X	MGF CHIP 1/16W 47	
R4528	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R4529	ERJ2GEJ470X	MGF CHIP 1/16W 47	
R4530	ERJ2GEJ470X	MGF CHIP 1/16W 47	
R4531	D0GA102JA015	MGF CHIP 1/16W 1K	PV-GS9PL
R4531	D0GA562JA015	MGF CHIP 1/16W 5.6K	PV-GS12PL
R4531	ERJ2GEJ103X	MGF CHIP 1/16W 10K	PV-GS15PL
R4535	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R5005	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R5006	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R5007	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R5008	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R5009	D0GA182JA015	MGF CHIP 1/16W 1.8K	
R5010	D0GA682JA015	MGF CHIP 1/16W 6.8K	
R5011	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6001	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6002	D0GA102JA015	MGF CHIP 1/16W 1K	
R6003	D0GA102JA015	MGF CHIP 1/16W 1K	
R6004	D0GA102JA015	MGF CHIP 1/16W 1K	
R6005	ERJ2GEJ101X	MGF CHIP 1/16W 100	

Ref. No.	Part No.	Part Name & Description	Remarks
R6006	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6007	D0GA102JA015	MGF CHIP 1/16W 1K	
R6008	ERJ6GEYJ221V	MGF CHIP 1/10W 220	
R6009	D0GA272JA015	MGF CHIP 1/16W 2.7K	
R6010	ERJ6GEYJ330V	MGF CHIP 1/10W 33	
R6011	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R6012	D0GA392JA015	MGF CHIP 1/16W 3.9K	
R6016	D0GA102JA015	MGF CHIP 1/16W 1K	
R6017	D0GA102JA015	MGF CHIP 1/16W 1K	
R6018	D0GA102JA015	MGF CHIP 1/16W 1K	
R6019	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R6020	D0GA682JA015	MGF CHIP 1/16W 6.8K	
R6021	ERJ2GEJ183X	MGF CHIP 1/16W 18K	
R6022	ERJ2GEJ183X	MGF CHIP 1/16W 18K	
R6023	ERJ2GEJ273X	MGF CHIP 1/16W 27K	
R6024	ERJ2GEJ273X	MGF CHIP 1/16W 27K	
R6025	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R6026	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R6027	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6029	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6030	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6031	ERJ2GE0R00X	MGF CHIP 1/16W 0 / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE B)	
R6032	ERJ2GE0R00X	MGF CHIP 1/16W 0 / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE A)	
R6033	ERJ2GEJ331X	MGF CHIP 1/16W 330	
R6034	D0GA102JA015	MGF CHIP 1/16W 1K	
R6035	D0GA102JA015	MGF CHIP 1/16W 1K	
R6036	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6037	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6039	ERJ2GEJ393X	MGF CHIP 1/16W 39K	
R6041	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6042	D0GA152JA015	MGF CHIP 1/16W 1.5K	
R6043	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6044	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6045	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6046	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6047	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6049	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6051	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6052	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6053	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6054	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6055	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6056	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6057	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6058	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6059	D0GA102JA015	MGF CHIP 1/16W 1K	
R6060	D0GA102JA015	MGF CHIP 1/16W 1K	
R6061	D0GA102JA015	MGF CHIP 1/16W 1K	
R6062	D0GA102JA015	MGF CHIP 1/16W 1K	
R6063	D0GA102JA015	MGF CHIP 1/16W 1K	
R6065	D0GA102JA015	MGF CHIP 1/16W 1K	
R6066	D0GA102JA015	MGF CHIP 1/16W 1K	

Ref. No.	Part No.	Part Name & Description	Remarks
R6067	D0GA102JA015	MGF CHIP 1/16W 1K	
R6068	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6069	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6071	D0GA102JA015	MGF CHIP 1/16W 1K	
R6073	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6075	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R6076	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R6078	ERJ2GEJ103X	MGF CHIP 1/16W 10K	
R6079	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R6080	ERJ2GEJ821X	MGF CHIP 1/16W 820	
R6081	D0GA152JA015	MGF CHIP 1/16W 1.5K	
R6082	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6083	ERJ2RHD683X	MGF CHIP 1/16W 68K	
R6084	ERJ2RHD223X	MGF CHIP 1/16W 22K	
R6085	D0GA102JA015	MGF CHIP 1/16W 1K	
R6086	D0GA102JA015	MGF CHIP 1/16W 1K	
R6087	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6088	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6089	ERJ2GEJ331X	MGF CHIP 1/16W 330	
R6090	ERJ2GEJ331X	MGF CHIP 1/16W 330	
R6091	ERJ2GEJ331X	MGF CHIP 1/16W 330	
R6092	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R6093	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R6094	ERJ2GEJ473X	MGF CHIP 1/16W 47K	
R6095	ERJ2RHD103X	MGF CHIP 1/16W 10K	
R6096	ERJ2GEJ394X	MGF CHIP 1/16W 390K	
R6097	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R6098	D0GA822JA015	MGF CHIP 1/16W 8.2K	
R6099	ERJ2GEJ123X	MGF CHIP 1/16W 12K	
R6100	D0GA102JA015	MGF CHIP 1/16W 1K	
R6101	D0GA102JA015	MGF CHIP 1/16W 1K	
R6102	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R6103	D0GA822JA015	MGF CHIP 1/16W 8.2K	
R6104	ERJ2GEJ223X	MGF CHIP 1/16W 22K	
R6105	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6106	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6107	ERJ2GEJ123X	MGF CHIP 1/16W 12K	
R6108	ERJ2GEJ105X	MGF CHIP 1/16W 1M	
R6109	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6110	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6111	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6112	D0GA102JA015	MGF CHIP 1/16W 1K	
R6113	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6114	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6115	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6116	D0GA222JA015	MGF CHIP 1/16W 2.2K	
R6117	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6118	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6119	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6120	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6121	D0GA332JA015	MGF CHIP 1/16W 3.3K	
R6122	ERJ2GEJ470X	MGF CHIP 1/16W 47	
R6123	ERJ2GEJ471X	MGF CHIP 1/16W 470	PV-GS12PL,PV-GS15PL

Ref. No.	Part No.	Part Name & Description	Remarks
R6124	**ERJ3GEYJ330V**	**MGF CHIP 1/16W 33**	
R6125	**ERJ3GEYJ330V**	**MGF CHIP 1/16W 33**	
R6127	**ERJ2GEJ473X**	**MGF CHIP 1/16W 47K**	
R6128	**ERJ2GEJ473X**	**MGF CHIP 1/16W 47K**	
R6129	**ERJ6GEYJ330V**	**MGF CHIP 1/10W 33**	
R6130	**ERJ6GEYJ221V**	**MGF CHIP 1/10W 220**	
R6131	**ERJ2GEJ103X**	**MGF CHIP 1/16W 10K**	
R6132	**ERJ2GEJ103X**	**MGF CHIP 1/16W 10K**	
R6133	**D0GA152JA015**	**MGF CHIP 1/16W 1.5K**	
R6134	**ERJ2GEJ471X**	**MGF CHIP 1/16W 470**	
R6135	**ERJ2GE0R00X**	**MGF CHIP 1/16W 0**	
R6136	**ERJ2GEJ473X**	**MGF CHIP 1/16W 47K**	
R6137	**ERJ2GE0R00X**	**MGF CHIP 1/16W 0**	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C303	**F1J0J4750004**	**C CHIP 6.3V 0.47UF**	
C304	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C305	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C307	**F1H1C104A041**	**C CHIP 16V 0.1UF**	
C308	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C311	**ECJ1VB1A105K**	**C CHIP 10V 1UF**	
C312	**F1H1C104A041**	**C CHIP 16V 0.1UF**	
C314	**F1K1A1060014**	**C CHIP 10V 10UF**	
C315	**ECJ3YF1C475Z**	**C CHIP 16V 4.7UF**	
C316	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C502	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C503	**F1G0J105A001**	**C CHIP 6.3V 1UF**	
C504	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C505	**F1G1H102A457**	**C CHIP 50V 1000PF**	
C506	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C509	**F3F0J106A032**	**TANTALUM CHIP 6.3V 100UF**	
C510	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C512	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C513	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C514	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C701	**ECJ1VB1A105K**	**C CHIP 10V 1UF**	
C702	**ECJ1VB1A105K**	**C CHIP 10V 1UF**	
C703	**ECJ1VB1A224K**	**C CHIP 10V 0.22UF**	
C704	**ECJ1VB1A105K**	**C CHIP 10V 1UF**	
C705	**F3F1A226A026**	**TANTALUM CHIP 10V 220UF**	
C708	**ECJ0EB1A104K**	**C CHIP 10V 0.1UF**	
C709	**F1G1C103A046**	**C CHIP 16V 0.01UF**	
C710	**ECJ1VB1A105K**	**C CHIP 10V 1UF**	
C711	**F1G1H102A457**	**C CHIP 50V 1000PF**	
C712	**ECJ0EB1A473K**	**C CHIP 10V 0.047**	
C713	**ECST0JZ106R**	**TANTALUM CHIP 6.3V 10UF**	
C714	**F1G1C103A046**	**C CHIP 16V 0.01UF**	
C715	**ECJ0EB1H471K**	**C CHIP 50V 470PF**	
C716	**ECJ0EB1E101K**	**C CHIP 25V 100PF**	
C717	**ECJ1VF1A105Z**	**C CHIP 10V 1UF**	
C718	**F1G1E4720004**	**C CHIP 25V 4700PF**	
C720	**F1G1C103A046**	**C CHIP 16V 0.01UF**	

Ref. No.	Part No.	Part Name & Description	Remarks
C721	ECJ1VF1A105Z	C CHIP 10V 1UF	
C722	ECJ1VB1A105K	C CHIP 10V 1UF	
C903	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C905	F1J1C1050011	C CHIP 16V 1UF	
C910	F1H1C104A041	C CHIP 16V 0.1UF	
C915	F1J1C1050011	C CHIP 16V 1UF	
C916	F1J1A2250007	C CHIP 10V 2.2UF	
C917	F1J1A2250007	C CHIP 10V 2.2UF	
C919	F1J1A2250007	C CHIP 10V 2.2UF	
C1001	ECJ1VB1E333K	C CHIP 25V 0.033UF	
C1003	ECJ0EC1H101J	C CHIP 50V 100PF	
C1004	F1H1E223A029	C CHIP 25V 0.022UF	
C1005	F1H1C104A041	C CHIP 16V 0.1UF	
C1006	F1H1C104A041	C CHIP 16V 0.1UF	
C1007	F1J1C1050011	C CHIP 16V 1UF	
C1008	F1J1C1050011	C CHIP 16V 1UF	
C1009	ECJ0EB1A473K	C CHIP 10V 0.047	
C1011	F1G1E4720004	C CHIP 25V 4700PF	
C1012	F1G1C103A046	C CHIP 16V 0.01UF	
C1014	F1G1C103A046	C CHIP 16V 0.01UF	
C1017	F1G1E4720004	C CHIP 25V 4700PF	
C1018	F1G1C103A046	C CHIP 16V 0.01UF	
C1020	ECJ3YB1C475K	C CHIP 16V 4.7UF	
C1031	ECJ2VF1C105Z	C CHIP 16V 1UFM	
C1032	F1L1C106A011	C CHIP 16V 10UF	
C1033	F1J1A2250007	C CHIP 10V 2.2UF	
C1034	F1J0J4750004	C CHIP 6.3V 0.47UF	
C1036	F1J0J4750004	C CHIP 6.3V 0.47UF	
C1037	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C1038	F1J0J4750004	C CHIP 6.3V 0.47UF	
C1039	F1J1C1050011	C CHIP 16V 1UF	
C1040	F1J1C1050011	C CHIP 16V 1UF	
C1041	F1J1C1050011	C CHIP 16V 1UF	
C1042	F1J1C1050011	C CHIP 16V 1UF	
C1043	F1G1H681A401	C CHIP 50V 680PF	
C1046	ECJ0EB1H152K	C CHIP 50V 1500PF	
C1048	F1G1H222A457	C CHIP 50V 2200PF	
C1050	F1G1H102A457	C CHIP 50V 1000PF	
C1051	ECJ1VF1A105Z	C CHIP 10V 1UF	
C1053	ECJ1VF1A105Z	C CHIP 10V 1UF	
C1055	ECJ1VF1A105Z	C CHIP 10V 1UF	
C1056	ECJ1VF1A105Z	C CHIP 10V 1UF	
C1057	ECJ1VF1A105Z	C CHIP 10V 1UF	
C1058	ECJ1VF1A105Z	C CHIP 10V 1UF	
C1060	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C1061	ECJ1VB1A105K	C CHIP 10V 1UF	
C1062	ECJ1VF1A105Z	C CHIP 10V 1UF	
C1063	ECJ1VB1A105K	C CHIP 10V 1UF	
C1064	ECJ1VF1A105Z	C CHIP 10V 1UF	
C1065	F1G1C103A046	C CHIP 16V 0.01UF	
C1067	ECJ1VF1A105Z	C CHIP 10V 1UF	
C1068	ECJ1VB1A105K	C CHIP 10V 1UF	
C1069	ECST0JZ106R	TANTALUM CHIP 6.3V 10UF	
C1070	ECJ1VF1A105Z	C CHIP 10V 1UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C1071	ECJ2YF1C225Z	C CHIP 16V 2.2UF	
C1072	ECJ2YF1C225Z	C CHIP 16V 2.2UF	
C1073	F1J1C1050011	C CHIP 16V 1UF	
C1074	ECJ1VB1A105K	C CHIP 10V 1UF	
C1075	ECJ1VF1A105Z	C CHIP 10V 1UF	
C1076	ECJ1VB1A105K	C CHIP 10V 1UF	
C1079	F1G1E4720004	C CHIP 25V 4700PF	
C1086	F1G1C103A046	C CHIP 16V 0.01UF	
C1088	ECST0JZ106R	TANTALUM CHIP 6.3V 10UF	
C1090	F1H1C104A041	C CHIP 16V 0.1UF	
C1091	F1H1C104A041	C CHIP 16V 0.1UF	
C2001	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C2002	ECJ3YB1C475K	C CHIP 16V 4.7UF	
C2003	ECJ1VB1A105K	C CHIP 10V 1UF	
C2004	F1G1C103A046	C CHIP 16V 0.01UF	
C2005	F1G1E4720004	C CHIP 25V 4700PF	
C2006	F1G1E4720004	C CHIP 25V 4700PF	
C2007	ECJ1VB1A105K	C CHIP 10V 1UF	
C2008	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C2009	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C2010	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C2011	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C2012	ECJ1VB1A105K	C CHIP 10V 1UF	
C2013	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C2014	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C2015	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C2016	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C2017	ECJ1VB1A105K	C CHIP 10V 1UF	
C2018	F1H1C104A041	C CHIP 16V 0.1UF	
C2020	F1H1C104A041	C CHIP 16V 0.1UF	
C2021	ECJ0EC1H101J	C CHIP 50V 100PF	
C2022	ECJ1VB1A105K	C CHIP 10V 1UF	
C2023	ECJ1VB1A105K	C CHIP 10V 1UF	
C2024	ECJ0EC1H470J	C CHIP 50V 47PF	
C2025	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C2026	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3001	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C3002	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C3003	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3005	F1G1C103A046	C CHIP 16V 0.01UF	
C3006	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C3007	F1G1C103A046	C CHIP 16V 0.01UF	
C3008	F3F0G226A030	TANTALUM CHIP 4V 220UF	
C3009	F1G1C103A046	C CHIP 16V 0.01UF	
C3010	ECJ1VB1A105K	C CHIP 10V 1UF	
C3011	F1G1C103A046	C CHIP 16V 0.01UF	
C3012	ECJ1VB1A105K	C CHIP 10V 1UF	
C3013	ECJ1VB1A105K	C CHIP 10V 1UF	
C3014	F1G1C103A046	C CHIP 16V 0.01UF	
C3015	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C3016	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3017	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3019	ECJ1VB1A105K	C CHIP 10V 1UF	
C3020	ECJ0EC1H120J	C CHIP 50V 12PF	

Ref. No.	Part No.	Part Name & Description	Remarks
C3021	ECJ0EC1H270J	C CHIP 50V 27PF	
C3022	F1G1C103A046	C CHIP 16V 0.01UF	
C3023	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3024	ECJ0EC1H221J	C CHIP 50V 220PF	
C3025	ECJ1VB1A105K	C CHIP 10V 1UF	
C3026	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3027	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3028	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3029	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3030	F1G1C103A046	C CHIP 16V 0.01UF	
C3031	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3032	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3033	F1G1C103A046	C CHIP 16V 0.01UF	
C3034	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3035	F1G1C103A046	C CHIP 16V 0.01UF	
C3036	F1G1C103A046	C CHIP 16V 0.01UF	
C3037	ECJ1VB1A105K	C CHIP 10V 1UF	
C3038	F1G1C103A046	C CHIP 16V 0.01UF	
C3039	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3040	ECJ0EC1H080D	C CHIP 50V 8PF	
C3041	ECJ0EC1H080D	C CHIP 50V 8PF	
C3042	F1J1C1050011	C CHIP 16V 1UF	
C3043	F1G1C103A046	C CHIP 16V 0.01UF	
C3044	F1G1C103A046	C CHIP 16V 0.01UF	
C3046	F1G1C103A046	C CHIP 16V 0.01UF	
C3047	F1J0J4750004	C CHIP 6.3V 0.47UF	
C3048	ECJ1VB1A105K	C CHIP 10V 1UF	
C3101	F1G1C103A046	C CHIP 16V 0.01UF	
C3102	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3103	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C3104	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3105	F1H1C104A041	C CHIP 16V 0.1UF	
C3106	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C3107	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3108	F1J1C1050011	C CHIP 16V 1UF	PV-GS15PL
C3109	F3G0J107A017	TANTALUM CHIP 6.3V 1000UF	PV-GS15PL
C3110	F1G1C103A046	C CHIP 16V 0.01UF	PV-GS15PL
C3111	F3G0J107A017	TANTALUM CHIP 6.3V 1000UF	
C3112	F1J1C1050011	C CHIP 16V 1UF	
C3201	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3202	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3203	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C3204	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3206	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3207	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3209	F1J0J4750004	C CHIP 6.3V 0.47UF	
C3210	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3211	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3212	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3214	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3215	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3216	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3217	F1G1C103A046	C CHIP 16V 0.01UF	
C3218	ECJ0EB1A104K	C CHIP 10V 0.1UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C3219	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3221	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3222	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3224	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3225	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3226	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C3227	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C4502	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C4504	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C4505	F3F0G226A030	TANTALUM CHIP 4V 220UF	
C4506	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C4507	F3F0G226A030	TANTALUM CHIP 4V 220UF	
C4508	F3F0G226A030	TANTALUM CHIP 4V 220UF	
C4509	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C4510	F1G1C103A046	C CHIP 16V 0.01UF	
C4511	F1J1C1050011	C CHIP 16V 1UF	
C4512	F1J1C1050011	C CHIP 16V 1UF	
C4513	ECJ1VB1A224K	C CHIP 10V 0.22UF	
C4517	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C4518	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C4519	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C4520	F1J1A2250007	C CHIP 10V 2.2UF	
C4521	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C5001	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C5002	ECST0JY226R	TANTALUM CHIP 6.3V 22UF	
C5004	F1G1H681A401	C CHIP 50V 680PF	
C5005	F1G1C103A046	C CHIP 16V 0.01UF	
C5007	F1G1C103A046	C CHIP 16V 0.01UF	
C5009	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C5011	F1G1C103A046	C CHIP 16V 0.01UF	
C5012	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C5013	ECJ0EC1H120J	C CHIP 50V 12PF	
C5014	ECJ0EC1H120J	C CHIP 50V 12PF	
C5015	ECJ0EC1H120J	C CHIP 50V 12PF	
C5016	ECJ0EC1H120J	C CHIP 50V 12PF	
C6001	ECST0JY226R	TANTALUM CHIP 6.3V 22UF	
C6002	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C6003	ECJ1VB1A105K	C CHIP 10V 1UF	
C6007	F1G1C103A046	C CHIP 16V 0.01UF	
C6009	ECJ0EC1H040C	C CHIP 50V 4PF	
C6010	F1H1C104A041	C CHIP 16V 0.1UF	
C6011	ECST0JY226R	TANTALUM CHIP 6.3V 22UF	
C6012	F1G1C103A046	C CHIP 16V 0.01UF	
C6013	F1G1C103A046	C CHIP 16V 0.01UF	
C6014	F1H1C104A041	C CHIP 16V 0.1UF	
C6015	ECJ1VB1A105K	C CHIP 10V 1UF	
C6017	F1H1C104A041	C CHIP 16V 0.1UF	
C6019	F1H1C104A041	C CHIP 16V 0.1UF	
C6020	ECST0JY226R	TANTALUM CHIP 6.3V 22UF	
C6021	F1G1C103A046	C CHIP 16V 0.01UF	
C6022	ECJ2VF1C105Z	C CHIP 16V 1UFM	
C6023	F1G1C103A046	C CHIP 16V 0.01UF	
C6024	ECJ0EC1H120J	C CHIP 50V 12PF / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE A)	

Ref. No.	Part No.	Part Name & Description	Remarks
C6024	ECJ0EC1H270J	C CHIP 50V 27PF / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE B)	
C6025	F1G1C103A046	C CHIP 16V 0.01UF	
C6026	F1G1C103A046	C CHIP 16V 0.01UF	
C6027	F1G1C103A046	C CHIP 16V 0.01UF	
C6028	F1G1C103A046	C CHIP 16V 0.01UF	
C6029	F1G1C103A046	C CHIP 16V 0.01UF	
C6030	ECJ0EF1C104Z	C CHIP 16V 0.1UF	
C6031	ECJ0EC1H120J	C CHIP 50V 12PF / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE A)	
C6031	ECJ0EC1H220J	C CHIP 50V 22PF / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE B)	
C6032	F1G1C103A046	C CHIP 16V 0.01UF	
C6033	F1G1C103A046	C CHIP 16V 0.01UF	
C6035	F1G1C103A046	C CHIP 16V 0.01UF	
C6036	F1G1C103A046	C CHIP 16V 0.01UF	
C6037	F1G1C103A046	C CHIP 16V 0.01UF	
C6039	F1G1C103A046	C CHIP 16V 0.01UF	
C6040	F1G1C103A046	C CHIP 16V 0.01UF	
C6041	F1G1C103A046	C CHIP 16V 0.01UF	
C6042	F1G1C103A046	C CHIP 16V 0.01UF	
C6043	F1G1C103A046	C CHIP 16V 0.01UF	
C6045	ECJ0EB1A104K	C CHIP 10V 0.1UF	
C6046	F1G1C103A046	C CHIP 16V 0.01UF	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L303	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L305	G1C100Z00013	INDUCTOR CHIP 10UH	
L306	G1C100Z00013	INDUCTOR CHIP 10UH	
L501	G1C100K00020	COIL CHIP 10UH	
L901	G1C100Z00013	INDUCTOR CHIP 10UH	
L902	G1C100M00010	COIL CHIP 10UH	
L903	G1C100M00010	COIL CHIP 10UH	
L1001	J0JHC0000054	BEADS CORE	
L1002	G1C100MA0065	CHOKE COIL 10UH	
L1003	G1C220MA0065	CHOKE COIL 22UH	
L1004	G1C220MA0065	CHOKE COIL 22UH	
L1005	G1C330MA0065	CHOKE COIL 33UH	
L1006	G1C470MA0065	CHOKE COIL 47UH	
L1007	G1C4R7MA0031	COIL CHIP 4.7UH	
L1009	G1C4R7MA0031	COIL CHIP 4.7UH	
L1010	G1C100K00020	COIL CHIP 10UH	
L1011	G1C100K00020	COIL CHIP 10UH	
L1012	G1C4R7MA0031	COIL CHIP 4.7UH	
L1013	G1C4R7MA0031	COIL CHIP 4.7UH	
L1014	G1C100K00020	COIL CHIP 10UH	
L1015	G1C100K00020	COIL CHIP 10UH	
L1016	G1C4R7MA0031	COIL CHIP 4.7UH	
L1017	G1C4R7MA0031	COIL CHIP 4.7UH	
L1018	G1C4R7MA0031	COIL CHIP 4.7UH	
L1019	G1C470JA0041	COIL CHIP 47UH	
L1020	G1C470JA0041	COIL CHIP 47UH	

Ref. No.	Part No.	Part Name & Description	Remarks
L1021	G1C470JA0041	COIL CHIP 47UH	
L1022	G1C4R7MA0031	COIL CHIP 4.7UH	
L1023	J0JGC0000034	FERRITE BEAD CHIP	
L3001	J0JBC0000027	FERRITE BEAD CHIP	
L3002	G1C100M00010	COIL CHIP 10UH	
L3003	G1C100KA0055	COIL CHIP 10UH	
L3004	G1C100M00010	COIL CHIP 10UH	
L3005	J0JBC0000027	FERRITE BEAD CHIP	
L3006	J0JBC0000027	FERRITE BEAD CHIP	
L3008	J0JBC0000027	FERRITE BEAD CHIP	
L3011	J0JBC0000027	FERRITE BEAD CHIP	
L3013	J0JBC0000027	FERRITE BEAD CHIP	
L3014	J0JBC0000027	FERRITE BEAD CHIP	
L3015	G1C100M00010	COIL CHIP 10UH	
L3016	J0JBC0000027	FERRITE BEAD CHIP	
L3101	G1C100M00010	COIL CHIP 10UH	
L3102	G1C100M00010	COIL CHIP 10UH	
L3201	J0JBC0000014	BEAD INDUCTOR	
L3202	G1C100M00010	COIL CHIP 10UH	
L3203	G1C100M00010	COIL CHIP 10UH	
L3204	G1C100M00010	COIL CHIP 10UH	
L4501	J0JBC0000027	FERRITE BEAD CHIP	
L4502	G1C470MA0031	COIL CHIP 47UH	
L4503	G1C100M00010	COIL CHIP 10UH	
L4504	G1C100M00010	COIL CHIP 10UH	
L5001	G1C101KA0031	COIL CHIP 100UH	
L5002	G1C100M00010	COIL CHIP 10UH	
L6002	G1C100M00010	COIL CHIP 10UH	
L6003	ERJ6GEY0R00V	MGF CHIP 1/10W 0	

CRYSTAL OSCILLATOR

Ref. No.	Part No.	Part Name & Description	Remarks
X3001	H0J245500047	CRYSTAL OSCILLATOR	
X3002	H0J480500019	CRYSTAL OSCILLATOR	
X6001	H0A135500002	CRYSTAL OSCILLATOR	
X6002	H0A327200093	CRYSTAL OSCILLATOR	

FPC CONNECTOR

Ref. No.	Part No.	Part Name & Description	Remarks
FP1	K1MN08B00115	CONNECTOR 8P	
FP2	K1MN18B00089	CONNECTOR 18P	
FP3	K1MN10B00080	CONNECTOR 10P	
FP4	K1MN18B00059	CONNECTOR 18P	
FP5	K1MN08B00115	CONNECTOR 8P	
FP6	K1MN12B00102	CONNECTOR 12P	
FP7	K1MN28A00038	CONNECTOR 28P	
FP8	K1MN26A00063	CONNECTOR 26P	
FP9	K1MN22A00061	CONNECTOR 22P	
FP10	K1MN18B00063	CONNECTOR 18P	
FP11	K1MN26A00063	CONNECTOR 26P	PV-GS12PL,PV-GS15PL
FP12	K1MN12A00067	CONNECTOR 12P	PV-GS9PL
FP301	K1MN14A00088	CONNECTOR 14P	
FP701	K1MN22A00065	CONNECTOR 22P	
FP1201	K1MN14A00081	CONNECTOR 14P	
FP6001	K1MN12B00102	CONNECTOR 12P / *Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES. / (TYPE A)	

TRANSFORMER

Ref. No.	Part No.	Part Name & Description	Remarks
T1001	G5DYA0000087	TRANSFORMER	

13.2.2. REAR C.B.A.

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D1201	B0BC01200021	DIODE ZENER CHIP 12V	
D1202	B0BC01200021	DIODE ZENER CHIP 12V	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C1201	ECJ1VF1H103Z	C CHIP 50V 0.01UF	
C1202	ECJ1VF1H103Z	C CHIP 50V 0.01UF	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L1201	J0JGC0000034	FERRITE BEAD CHIP	
L1202	J0JGC0000034	FERRITE BEAD CHIP	

FUSE & PROTECTOR

Ref. No.	Part No.	Part Name & Description	Remarks
IP1201	K5H2022A0008	CIUCUIT PROTECTOR CHIP 32V 2A	⚠
IP1202	ERBSE2R00U	CIUCUIT PROTECTOR CHIP 32V 2A	⚠

JACKS

Ref. No.	Part No.	Part Name & Description	Remarks
JK1201	K4ZZ07000003	DC JACK SOCKET	

13.2.3. FRONT C.B.A.

INTEGRATED CIRCUITS

Ref. No.	Part No.	Part Name & Description	Remarks
IC4801	C0ABBB000262	IC, LINEAR	
IC4801	C0ABBB000105	IC, LINEAR	

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q4301	2SD0601ASL	TRANSISTOR SI NPN CHIP	PV-GS12PL,PV-GS15PL
Q4302	2SD0601ASL	TRANSISTOR SI NPN CHIP	PV-GS12PL,PV-GS15PL
Q4303	2SD0601ASL	TRANSISTOR SI NPN CHIP	PV-GS12PL,PV-GS15PL
Q4304	2SD0601ASL	TRANSISTOR SI NPN CHIP	PV-GS12PL,PV-GS15PL
Q4305	2SB1462JRL	TRANSISTOR SI PNP CHIP	PV-GS12PL,PV-GS15PL
Q4306	UNR9112J08	TRANSISTOR COMPLX CMP SI NPN CHIP	PV-GS12PL,PV-GS15PL
Q4306	B1GDCFLL0019	TRANSISTOR COMPLX CMP SI NPN CHIP	PV-GS12PL,PV-GS15PL
Q4307	UNR9213J08	TRANSISTOR COMPLX CMP SI PNP CHIP	PV-GS12PL,PV-GS15PL
Q4307	B1GBCFNN0029	TRANSISTOR COMPLX CMP SI PNP CHIP	PV-GS12PL,PV-GS15PL
Q4307	B1GBCFNN0030	TRANSISTOR COMPLX CMP SI PNP CHIP	PV-GS12PL,PV-GS15PL
Q4801	2SD2216J08	TRANSISTOR SI NPN CHIP	
Q4801	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q6501	2SD10300SL	TRANSISTOR SI NPN CHIP	
Q6502	2SD2216J08	TRANSISTOR SI NPN CHIP	
Q6502	B1ABCF000104	TRANSISTOR SI NPN CHIP	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D4301	B3AFB0000056	LIGHT EMITTING DIODE	PV-GS12PL,PV-GS15PL
D4302	B3AFB0000056	LIGHT EMITTING DIODE	PV-GS12PL,PV-GS15PL
D4303	B3AFB0000056	LIGHT EMITTING DIODE	PV-GS12PL,PV-GS15PL
D4304	B3AFB0000056	LIGHT EMITTING DIODE	PV-GS12PL,PV-GS15PL
D6503	MA3S132D0L	DIODE SI CHIP	
D6504	B3GA00000041	LIGHT EMITTING DIODE	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R4301	D0HB470ZA003	MGF CHIP 1/16W 47	PV-GS12PL,PV-GS15PL
R4302	D0HB470ZA003	MGF CHIP 1/16W 47	PV-GS12PL,PV-GS15PL
R4303	D0HB470ZA003	MGF CHIP 1/16W 47	PV-GS12PL,PV-GS15PL
R4304	D0HB470ZA003	MGF CHIP 1/16W 47	PV-GS12PL,PV-GS15PL
R4305	ERJ2RHD222X	MGF CHIP 1/16W 2.2K	PV-GS12PL,PV-GS15PL
R4306	ERJ2RHD333X	MGF CHIP 1/16W 33K	PV-GS12PL,PV-GS15PL
R4307	ERJ2RHD822X	MGF CHIP 1/16W 2.2K	PV-GS12PL,PV-GS15PL
R4801	ERJ2GE0R00X	MGF CHIP 1/16W 0	
R4802	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R4803	ERJ2GEJ223X	MGF CHIP 1/16W 22K	
R4804	ERJ2GEJ333X	MGF CHIP 1/16W 33K	
R4805	ERJ2GEJ124X	MGF CHIP 1/16W 120K	
R4806	ERJ2GEJ333X	MGF CHIP 1/16W 33K	
R4807	ERJ2RHD392X	MGF CHIP 1/16W 3.9	
R4808	ERJ2GEJ124X	MGF CHIP 1/16W 120K	
R4809	ERJ2GEJ333X	MGF CHIP 1/16W 33K	
R4810	ERJ2RHD392X	MGF CHIP 1/16W 3.9	
R6501	ERJ2GEJ560X	MGF CHIP 1/16W 56	
R6502	ERJ2GEJ683X	MGF CHIP 1/16W 68K	
R6503	ERJ2GEJ104X	MGF CHIP 1/16W 100K	
R6504	ERJ3GEYJ106V	MGF CHIP 1/16W 10M	
R6505	ERJ2GEJ225X	MGF CHIP 1/16W 2.2M	
R6506	ERJ2GEJ334X	MGF CHIP 1/16W 330K	
R6507	D0GA182JA015	MGF CHIP 1/16W 1.8K	
R6508	D0GA472JA015	MGF CHIP 1/16W 4.7K	
R6509	D0GA102JA015	MGF CHIP 1/16W 1K	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C4301	ECJ1VB1A105K	C CHIP 10V 1UF	PV-GS12PL,PV-GS15PL
C4801	ECJ1VB1A105K	C CHIP 10V 1UF	
C4802	ECJ1VB1A105K	C CHIP 10V 1UF	
C4803	ECST1CY475	TANTALUM CHIP 16V 4.7UF	
C4804	ECJ0EB1E822K	C CHIP 25V 8200PF	
C4805	ECJ0EB1A273K	C CHIP 10V 0.027	
C4806	ECJ0EB1A273K	C CHIP 10V 0.027	
C4808	ECJ0EB1A273K	C CHIP 10V 0.027	
C4809	ECJ0EB1E822K	C CHIP 25V 8200PF	
C4810	ECJ0EB1A273K	C CHIP 10V 0.027	
C4812	ECST0JY226R	TANTALUM CHIP 6.3V 22UF	
C6501	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C6502	ECJ0EF1C104Z	C CHIP 16V 0.1UF	
C6503	ECJ1VB0J474K	C CHIP 6.3V 0.47UF	
C6504	ECJ0EB1A104K	C CHIP 10V 0.1UF	

FPC CONNECTOR

Ref. No.	Part No.	Part Name & Description	Remarks
FP6501	K1MN12B00102	CONNECTOR 12P	

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
701	LSEK0543	ELECTRIC CONDENSER MICROPHONE UNIT	
702	LSMG0136	MIC DAMPER	
703	LSJW0057	FLEXIBLE FLAT CABLE W/OUT PLUG,5V	
704	B3RAB0000024	INFRARED RECEIVER	

13.2.4. JACK C.B.A.

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q4001	2SD2216J08	TRANSISTOR SI NPN CHIP	PV-GS15PL
Q4001	B1ABCF000104	TRANSISTOR SI NPN CHIP	PV-GS15PL
Q4002	2SB1462J08	TRANSISTOR SI PNP CHIP	PV-GS15PL
Q4002	B1ADCF000072	TRANSISTOR SI PNP CHIP	PV-GS15PL
Q4003	2SD2216J08	TRANSISTOR SI NPN CHIP	PV-GS15PL
Q4003	B1ABCF000104	TRANSISTOR SI NPN CHIP	PV-GS15PL
Q4004	2SB1462J08	TRANSISTOR SI PNP CHIP	PV-GS15PL
Q4004	B1ADCF000072	TRANSISTOR SI PNP CHIP	PV-GS15PL
Q4005	2SD2216J08	TRANSISTOR SI NPN CHIP	PV-GS15PL
Q4005	B1ABCF000104	TRANSISTOR SI NPN CHIP	PV-GS15PL

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D7001	D4ED1120A005	SURGE ABSORBER	
D7005	B0BD6R800009	DIODE ZENER CHIP 6.8V	PV-GS15PL
D7006	B0BC6R200019	DIODE ZENER CHIP 6.2V	PV-GS15PL
D7007	B0BC6R200019	DIODE ZENER CHIP 6.2V	PV-GS15PL

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R4001	D0GA222JA015	MGF CHIP 1/16W 2.2K	PV-GS15PL
R4002	D0GA562JA015	MGF CHIP 1/16W 5.6K	PV-GS15PL
R4003	ERJ2GEJ151X	MGF CHIP 1/16W 150	PV-GS15PL
R4004	D0GA122JA015	MGF CHIP 1/16W 1.2	PV-GS15PL
R4005	ERJ2GEJ103X	MGF CHIP 1/16W 10K	PV-GS15PL
R4006	ERA3YKD154V	MGF CHIP 1/16W 150K	PV-GS15PL
R4007	ERA3YKD563V	MGF CHIP 1/16W 56K	PV-GS15PL
R4008	ERJ2GEJ471X	MGF CHIP 1/16W 470	PV-GS15PL
R4009	D0GA562JA015	MGF CHIP 1/16W 5.6K	PV-GS15PL
R4010	ERJ2GEJ151X	MGF CHIP 1/16W 150	PV-GS15PL
R4011	D0GA122JA015	MGF CHIP 1/16W 1.2	PV-GS15PL
R4012	ERJ2GEJ103X	MGF CHIP 1/16W 10K	PV-GS15PL
R4013	ERA3YKD154V	MGF CHIP 1/16W 150K	PV-GS15PL
R4014	ERA3YKD563V	MGF CHIP 1/16W 56K	PV-GS15PL
R4015	ERJ2GEJ471X	MGF CHIP 1/16W 470	PV-GS15PL
R4016	ERJ3GEY0R00V	MGF CHIP 1/16W 0	PV-GS15PL
R4017	ERJ3GEY0R00V	MGF CHIP 1/16W 0	PV-GS15PL
R7001	D0GA122JA015	MGF CHIP 1/16W 1.2	
R7002	ERJ2GEJ331X	MGF CHIP 1/16W 330	PV-GS15PL

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C4001	F1G1C103A046	C CHIP 16V 0.01UF	PV-GS15PL
C4002	ECST0JY226R	TANTALUM CHIP 6.3V 22UF	PV-GS15PL
C4003	ECJ1VB1A105K	C CHIP 10V 1UF	PV-GS15PL
C4004	F3F0G226A030	TANTALUM CHIP 4V 220UF	PV-GS15PL
C4006	ECJ1VB1A105K	C CHIP 10V 1UF	PV-GS15PL
C4007	ECJ0EB1H332K	C CHIP 50V 3300PF	PV-GS15PL
C4008	ECJ1VB1A105K	C CHIP 10V 1UF	PV-GS15PL
C4009	F3F0G226A030	TANTALUM CHIP 4V 220UF	PV-GS15PL
C4011	ECJ1VB1A105K	C CHIP 10V 1UF	PV-GS15PL
C4012	ECJ0EB1H332K	C CHIP 50V 3300PF	PV-GS15PL
C7001	F1G1E4720004	C CHIP 25V 4700PF	
C7002	F1G1E4720004	C CHIP 25V 4700PF	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L4001	J0JBC0000036	FERRITE CORE	PV-GS15PL
L4002	J0JBC0000036	FERRITE CORE	PV-GS15PL
L7001	J0JBC0000027	FERRITE BEAD CHIP	
L7002	J0JBC0000027	FERRITE BEAD CHIP	
L7003	J0JBC0000027	FERRITE BEAD CHIP	
L7004	J0JBC0000027	FERRITE BEAD CHIP	
L7005	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L7006	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L7007	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L7008	J0JBC0000027	FERRITE BEAD CHIP	PV-GS15PL
L7009	J0JBC0000027	FERRITE BEAD CHIP	PV-GS15PL

FPC CONNECTOR

Ref. No.	Part No.	Part Name & Description	Remarks
FP7001	K1MN28A00038	CONNECTOR 28P	

SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
SW7001	ESE22MH22	SWITCH	

JACKS

Ref. No.	Part No.	Part Name & Description	Remarks
JK4001	K2HC105E0007	MIC JACK SOCKET	PV-GS15PL
JK7001	K2HC107B0003	A/V JACK SOCKET	
JK7002	K2YZ04000019	MINI DV JACK SOCKET	
JK7003	K2HZ105E0001	USB MINI JACK SOCKET	
JK7004	K2YZ06000022	S-VIDEO JACK SOCKET	PV-GS15PL

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
706	LSJW0059	JACK FLEXIBLE FLAT CABLE W/OUT PLUG,5V	
707	ML-621S/F9D	BATTERY	

13.2.5. LIQUID CRYSTAL DISPLAY C.B.A.

INTEGRATED CIRCUITS

Ref. No.	Part No.	Part Name & Description	Remarks
IC8001	AN2540FHQ-V	IC, LINEAR	

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q8001	UNR9212J08	TRANSISTOR SI NPN CHIP	
Q8001	B1GBCFLL0024	TRANSISTOR SI NPN CHIP	
Q8002	UNR921TJ08	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q8002	B1GBCFLN0003	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q8003	2SB1462J08	TRANSISTOR SI PNP CHIP	
Q8003	B1ADCF000072	TRANSISTOR SI PNP CHIP	
Q8004	2SB1462J08	TRANSISTOR SI PNP CHIP	
Q8004	B1ADCF000072	TRANSISTOR SI PNP CHIP	
Q8005	2SD2216J08	TRANSISTOR SI NPN CHIP	
Q8005	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q8006	2SD2216J08	TRANSISTOR SI NPN CHIP	
Q8006	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q8007	UNR921TJ08	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q8007	B1GBCFLN0003	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q8008	2SB1462J08	TRANSISTOR SI PNP CHIP	
Q8008	B1ADCF000072	TRANSISTOR SI PNP CHIP	
Q8009	2SD2216J08	TRANSISTOR SI NPN CHIP	
Q8009	B1ABCF000104	TRANSISTOR SI NPN CHIP	
Q8010	UNR9114J08	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q8010	B1GDCFJN0017	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q8011	UNR9212J08	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q8011	B1GBCFLL0024	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q8012	2SB1218ARL	TRANSISTOR SI PNP CHIP	
Q8013	XP0450100L	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q8014	2SD1819ARL	TRANSISTOR SI NPN CHIP	
Q8015	XP0440100L	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q8016	2SD1819ARL	TRANSISTOR SI NPN CHIP	
Q8018	2SD1819ARL	TRANSISTOR SI NPN CHIP	
Q8020	2SD1819ARL	TRANSISTOR SI NPN CHIP	
Q8022	UNR9112J08	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q8022	B1GDCFLL0019	TRANSISTOR COMPLX CMP SI NPN CHIP	
Q8023	UNR921TJ08	TRANSISTOR COMPLX CMP SI PNP CHIP	
Q8023	B1GBCFLN0003	TRANSISTOR COMPLX CMP SI PNP CHIP	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D8001	MAZ80680ML	DIODE ZENER CHIP 6.8V	
D8002	B3AFB0000068	LIGHT EMITTING DIODE	
D8003	B3AFB0000068	LIGHT EMITTING DIODE	
D8004	B3AFB0000068	LIGHT EMITTING DIODE	
D8005	B3AFB0000068	LIGHT EMITTING DIODE	
D8009	MAZ80680ML	DIODE ZENER CHIP 6.8V	
D8010	MAZ80680ML	DIODE ZENER CHIP 6.8V	
D8011	MAZ80680ML	DIODE ZENER CHIP 6.8V	
D8012	MAZ80680ML	DIODE ZENER CHIP 6.8V	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R8001	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R8002	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R8003	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R8004	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R8005	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R8006	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8007	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8008	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8009	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8010	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8011	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8012	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R8013	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8014	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8015	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8016	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8017	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R8020	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R8021	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R8022	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R8023	ERJ3GEYJ562V	MGF CHIP 1/16W 5.6K	
R8024	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R8025	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R8026	ERJ3GEYJ682V	MGF CHIP 1/16W 6.8K	
R8027	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R8028	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R8029	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R8030	ERJ3GEYJ153V	MGF CHIP 1/16W 15K	
R8031	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R8032	D0HB104ZA002	MGF CHIP 1/16W 100K	
R8033	ERA3YED123V	MGF CHIP 1/16W 12K	
R8034	D0HB184ZA002	MGF CHIP 1/16W 180K	
R8035	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R8036	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R8037	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R8038	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R8039	ERJ3GEYJ393V	MGF CHIP 1/16W 39K	
R8041	ERA3YHD330V	MGF CHIP 1/8W 33	
R8042	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8043	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R8044	ERJ3GEYJ393V	MGF CHIP 1/16W 39K	
R8046	ERA3YHD330V	MGF CHIP 1/8W 33	
R8049	ERA3YHD330V	MGF CHIP 1/8W 33	
R8052	ERA3YHD330V	MGF CHIP 1/8W 33	
R8054	ERJ3GEYJ153V	MGF CHIP 1/16W 15K	
R8056	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R8057	ERJ3GEYJ113V	MGF CHIP 1/16W 11K	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C8001	F1J1C474A059	C CHIP 16V 0.47UF	
C8002	F1H1C104A041	C CHIP 16V 0.1UF	
C8003	F1H1C104A041	C CHIP 16V 0.1UF	
C8004	F1H1C104A041	C CHIP 16V 0.1UF	
C8006	F3F0J106A032	TANTALUM CHIP 6.3V 100UF	
C8007	ECJ1VB1H103K	C CHIP 50V 0.01UF	
C8008	ECJ1VB1A224K	C CHIP 10V 0.22UF	
C8009	F1J1C1050011	C CHIP 16V 1UF	
C8010	F1H0J1050013	C CHIP 6.3V 1UF	
C8011	F1H1C104A041	C CHIP 16V 0.1UF	
C8012	ECJ1VB1A105K	C CHIP 10V 1UF	
C8013	ECJ1VB1A105K	C CHIP 10V 1UF	
C8014	F1H1C104A041	C CHIP 16V 0.1UF	
C8015	F1H1H152A219	C CHIP 50V 1500PF	
C8016	ECJ2YB0J225K	C CHIP 6.3V 2.2UF	
C8020	ECJ2YF1C225Z	C CHIP 16V 2.2UF	
C8021	F1H1C104A041	C CHIP 16V 0.1UF	
C8022	ECJ3VF1C225Z	C CHIP 16V 2.2UF	
C8023	F1H1C104A008	C CHIP 16V 0.1UF	
C8024	F1J1A1050002	C CHIP 10V 1UF	
C8025	F1J1C1050011	C CHIP 16V 1UF	
C8026	ECJ3YB1C475K	C CHIP 16V 4.7UF	

COILS

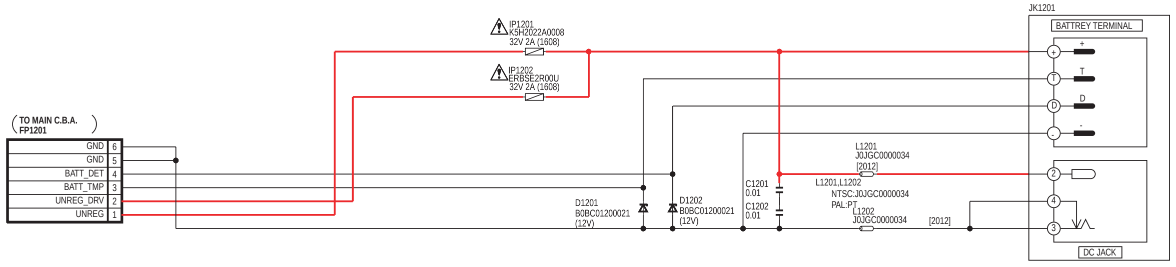
Ref. No.	Part No.	Part Name & Description	Remarks
L8001	G1C100M00010	COIL CHIP 10UH	
L8002	G1C100M00010	COIL CHIP 10UH	
L8003	G1C100M00010	COIL CHIP 10UH	
L8004	G1C100M00010	COIL CHIP 10UH	

FPC CONNECTORS

Ref. No.	Part No.	Part Name & Description	Remarks
FP8001	K1MN25B00064	CONNECTOR 25P	
FP8002	K1MN24B00112	CONNECTOR 24P	

14. SCHEMATIC DIAGRAMS FOR PRINTING WITH LETTER SIZE

REAR SCHEMATIC DIAGRAM


TO MAIN C.B.A.
FP1201
GND 6
GND 5
BATT_DET 4
BATT_TMP 3
UNREG_DRV 2
UNREG 1
IP1201
K5H2022A0008
32V 2A (1608)
IP1202
ERBSE2R00U
32V 2A (1608)
D1201
B0BC01200021
(12V)
D1202
B0BC01200021
(12V)
C1201
0.01
C1202
0.01
L1201
J0JGC0000034
[2012]
L1201,L1202
NTSC:J0JGC0000034
PAL:PT
L1202
J0JGC0000034
[2012]
JK1201
BATTREY TERMINAL
+
T
D
-
DC JACK

LSJB8263

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

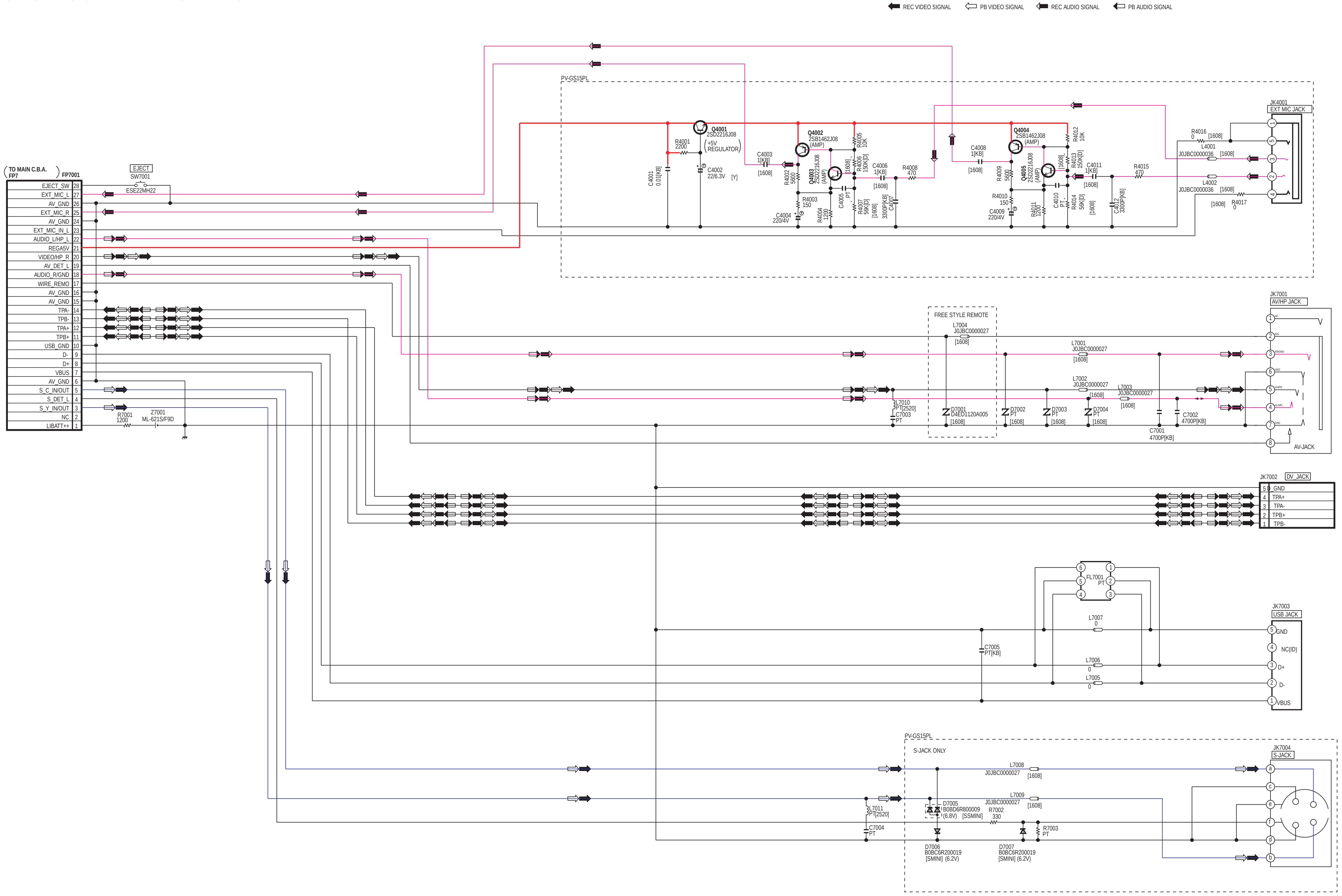
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

⚠ 2A 32V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 2A 32V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 2A 32V

JACK SCHEMATIC DIAGRAM


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
TO MAIN C.B.A.
FP7
FP7001
EJECT_SW 28
EXT_MIC_L 27
AV_GND 26
EXT_MIC_R 25
AV_GND 24
EXT_MIC_IN_L 23
AUDIO_L/HP_L 22
REGA5V 21
VIDEO/HP_R 20
AV_DET_L 19
AUDIO_R/GND 18
WIRE_REMO 17
AV_GND 16
AV_GND 15
TPA- 14
TPB- 13
TPA+ 12
TPB+ 11
USB_GND 10
D- 9
D+ 8
VBUS 7
AV_GND 6
S_C_IN/OUT 5
S_DET_L 4
S_Y_IN/OUT 3
NC 2
LIBATT++ 1
EJECT
SW7001
ESE22MH22
R7001
1200
Z7001
ML-621S/F9D
PV-GS15PL
Q4001
2SD2216J08
(+5V REGULATOR)
R4001
2200
C4001
0.01[KB]
C4002
22/6.3V
[Y]
C4003
1[KB]
[1608]
Q4002
2SB1462J08
(AMP)
R4002
5600
Q4003
2SD2216J08
(AMP)
R4003
150
C4004
220/4V
R4004
1200
C4005
PT
R4005
10K
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(AMP)
R4009
5600
Q4005
2SD2216J08
(AMP)
R4010
150
C4009
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JK4001
EXT MIC JACK
FREE STYLE REMOTE
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L7002
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D7003
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D7004
PT
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C7002
4700P[KB]
JK7001
AV/HP JACK
NC
SIG
AR/GND
GND
V/HPR
AL/HPL
GND
AV-JACK
JK7002
DV_JACK
5 D_GND
4 TPA+
3 TPA-
2 TPB+
1 TPB-
FL7001
PT
L7007
0
L7006
0
L7005
0
C7005
PT[KB]
JK7003
USB JACK
5 GND
4 NC(ID)
3 D+
2 D-
1 VBUS
PV-GS15PL
S-JACK ONLY
L7008
J0JBC0000027
[1608]
L7009
J0JBC0000027
[1608]
L7011
PT[2520]
C7004
PT
D7005
B0BD6R800009
(6.8V) [SSMINI]
R7002
330
R7003
PT
D7006
B0BC6R200019
[SMINI] (6.2V)
D7007
B0BC6R200019
[SMINI] (6.2V)
JK7004
S-JACK
a
c
e
f
d
b

LSJB8265

LINK TO VOLTAGE CHART

REAR SCHEMATIC DIAGRAM
FRONT SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

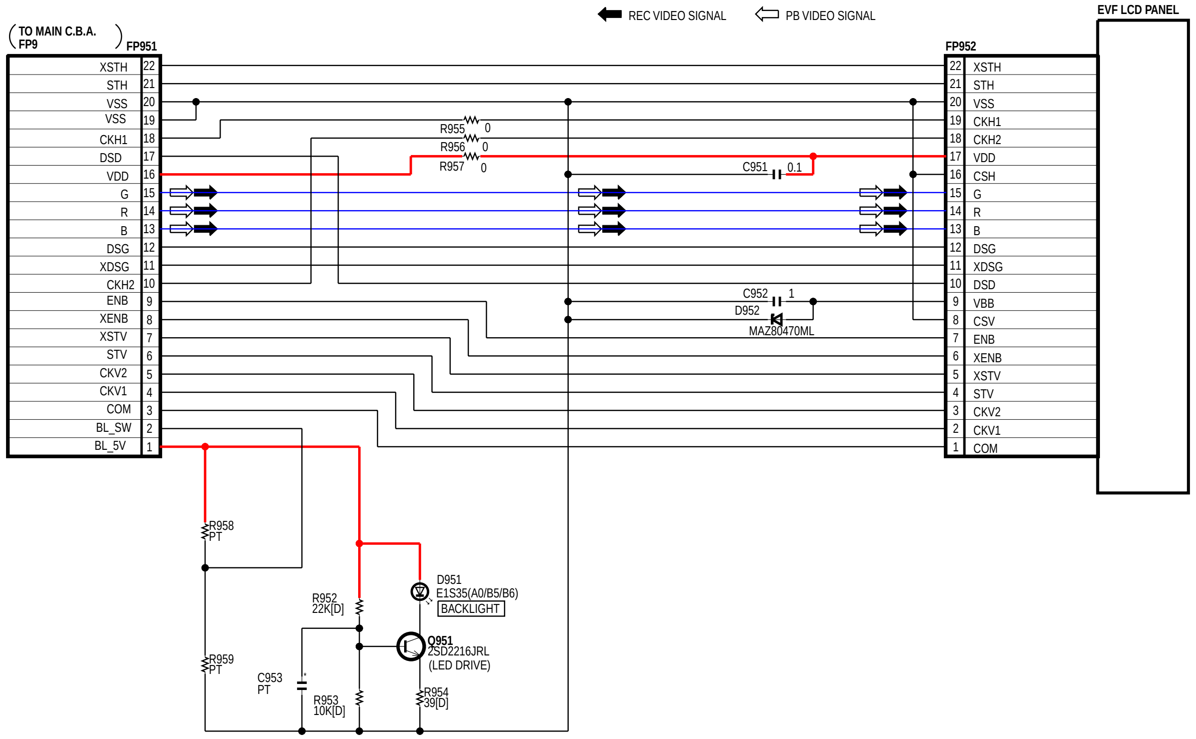
NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

EVF BACKLIGHT SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

NOTE:
EVF BACKLIGHT IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.



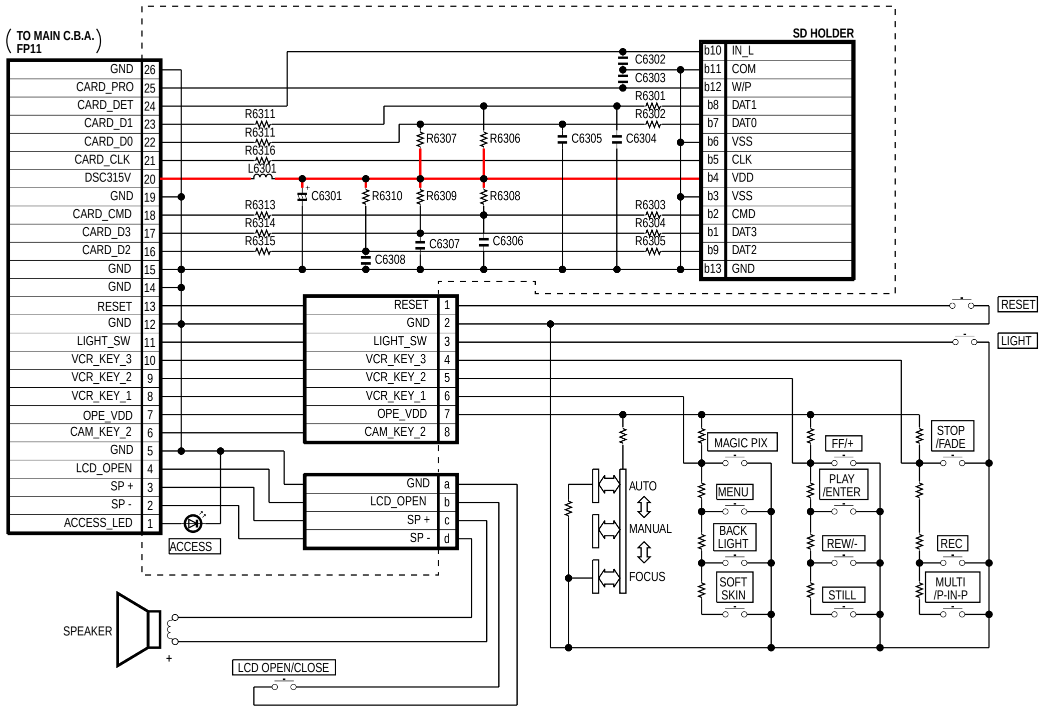
REC VIDEO SIGNAL
PB VIDEO SIGNAL
TO MAIN C.B.A.
FP9
FP951
XSTH 22
STH 21
VSS 20
VSS 19
CKH1 18
DSD 17
VDD 16
G 15
R 14
B 13
DSG 12
XDSG 11
CKH2 10
ENB 9
XENB 8
XSTV 7
STV 6
CKV2 5
CKV1 4
COM 3
BL_SW 2
BL_5V 1
R955 0
R956 0
R957 0
C951 0.1
C952 1
D952
MAZ80470ML
FP952
22 XSTH
21 STH
20 VSS
19 CKH1
18 CKH2
17 VDD
16 CSH
15 G
14 R
13 B
12 DSG
11 XDSG
10 DSD
9 VBB
8 CSV
7 ENB
6 XENB
5 XSTV
4 STV
3 CKV2
2 CKV1
1 COM
EVF LCD PANEL
R958 PT
R959 PT
C953 PT
R952 22K[D]
R953 10K[D]
D951
E1S35(A0/B5/B6)
BACKLIGHT
Q951
2SD2216JRL
(LED DRIVE)
R954 39[D]

SIDE CASE R SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

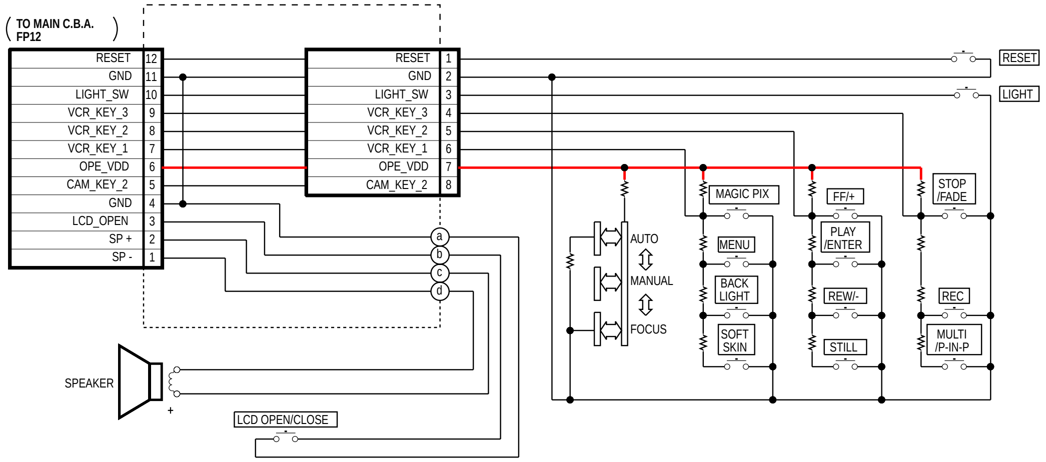
NOTE:
SIDE CASE R UNIT IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.

(WITH SD SLOT)



TO MAIN C.B.A.
FP11
GND 26
CARD_PRO 25
CARD_DET 24
CARD_D1 23
CARD_D0 22
CARD_CLK 21
DSC315V 20
GND 19
CARD_CMD 18
CARD_D3 17
CARD_D2 16
GND 15
GND 14
RESET 13
GND 12
LIGHT_SW 11
VCR_KEY_3 10
VCR_KEY_2 9
VCR_KEY_1 8
OPE_VDD 7
CAM_KEY_2 6
GND 5
LCD_OPEN 4
SP + 3
SP - 2
ACCESS_LED 1
R6311
R6311
R6316
L6301
R6313
R6314
R6315
C6301
R6310
C6308
R6307
R6309
C6307
R6306
R6308
C6306
C6305
C6304
C6302
C6303
R6301
R6302
R6303
R6304
R6305
SD HOLDER
b10 IN_L
b11 COM
b12 W/P
b8 DAT1
b7 DAT0
b6 VSS
b5 CLK
b4 VDD
b3 VSS
b2 CMD
b1 DAT3
b9 DAT2
b13 GND
RESET 1
GND 2
LIGHT_SW 3
VCR_KEY_3 4
VCR_KEY_2 5
VCR_KEY_1 6
OPE_VDD 7
CAM_KEY_2 8
GND a
LCD_OPEN b
SP + c
SP - d
ACCESS
RESET
LIGHT
AUTO
MANUAL
FOCUS
MAGIC PIX
MENU
BACK LIGHT
SOFT SKIN
FF/+
PLAY /ENTER
REW/-
STILL
STOP /FADE
REC
MULTI /P-IN-P
SPEAKER
+
LCD OPEN/CLOSE

(WITHOUT SD SLOT)



TO MAIN C.B.A.
FP12
RESET 12
GND 11
LIGHT_SW 10
VCR_KEY_3 9
VCR_KEY_2 8
VCR_KEY_1 7
OPE_VDD 6
CAM_KEY_2 5
GND 4
LCD_OPEN 3
SP + 2
SP - 1
RESET 1
GND 2
LIGHT_SW 3
VCR_KEY_3 4
VCR_KEY_2 5
VCR_KEY_1 6
OPE_VDD 7
CAM_KEY_2 8
a
b
c
d
RESET
LIGHT
AUTO
MANUAL
FOCUS
MAGIC PIX
MENU
BACK LIGHT
SOFT SKIN
FF/+
PLAY /ENTER
REW/-
STILL
STOP /FADE
REC
MULTI /P-IN-P
SPEAKER
+
LCD OPEN/CLOSE

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

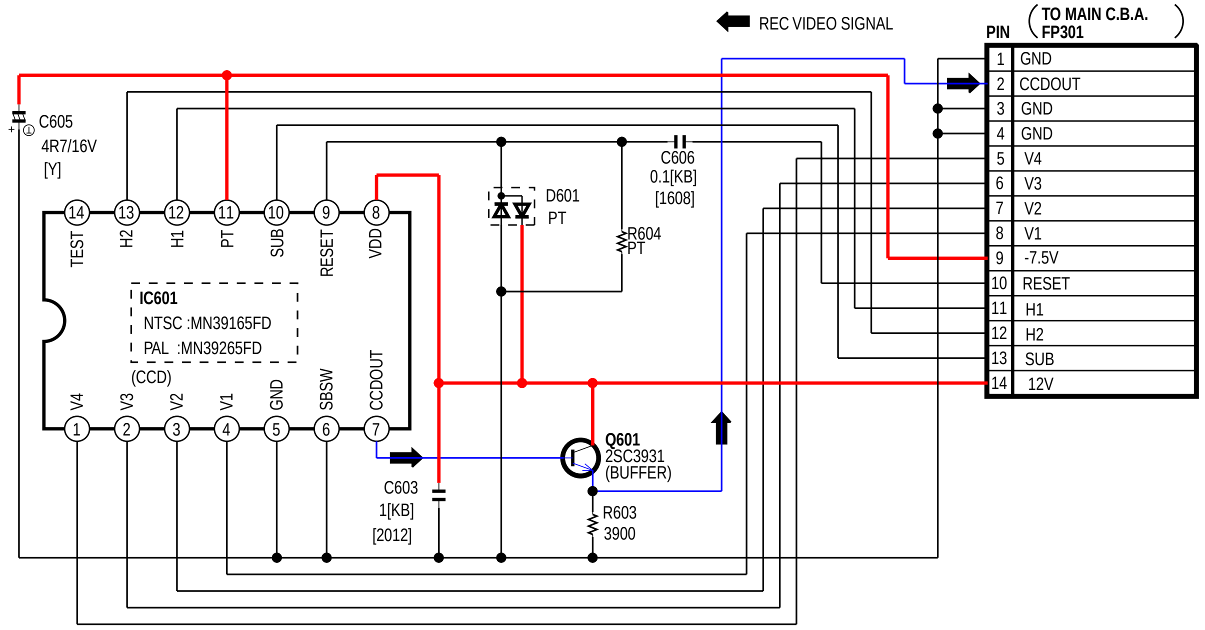
NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

CCD SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

NOTE:
CCD C.B.A. IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.

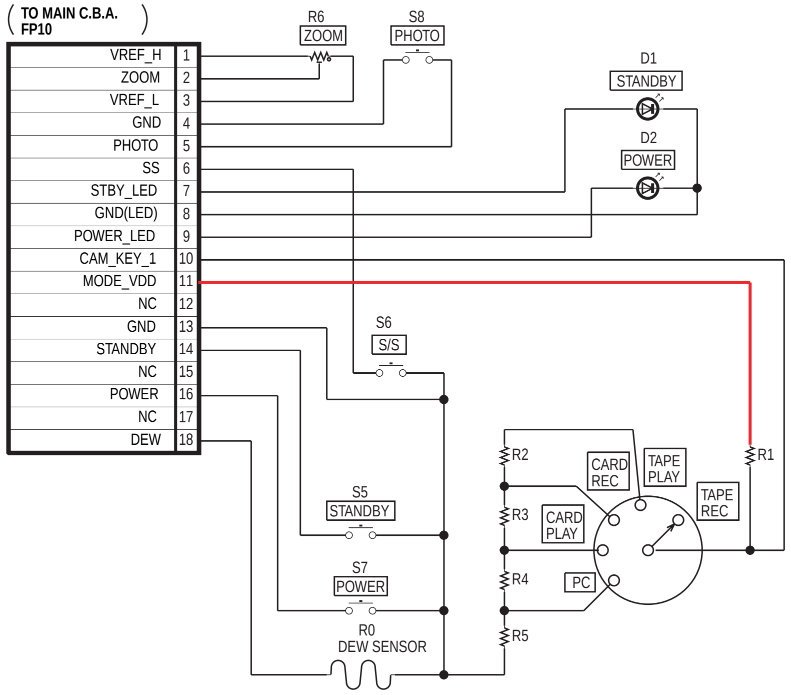


REC VIDEO SIGNAL
TO MAIN C.B.A.
FP301
PIN
1 GND
2 CCDOUT
3 GND
4 GND
5 V4
6 V3
7 V2
8 V1
9 -7.5V
10 RESET
11 H1
12 H2
13 SUB
14 12V
C605
4R7/16V
[Y]
14 TEST
13 H2
12 H1
11 PT
10 SUB
9 RESET
8 VDD
IC601
NTSC :MN39165FD
PAL :MN39265FD
(CCD)
1 V4
2 V3
3 V2
4 V1
5 GND
6 SBSW
7 CCDOUT
D601
PT
C606
0.1[KB]
[1608]
R604
PT
Q601
2SC3931
(BUFFER)
C603
1[KB]
[2012]
R603
3900

SIDE CASE L SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

NOTE:
SIDE CASE L UNIT IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.

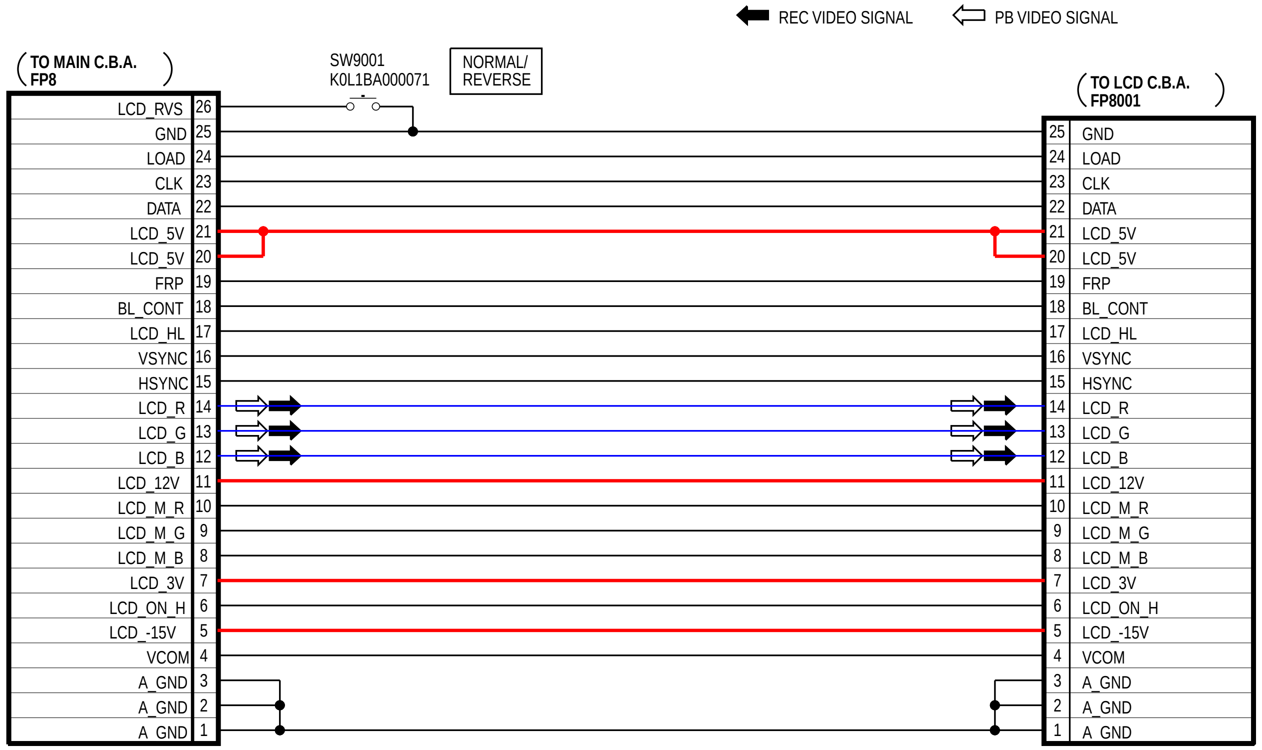


TO MAIN C.B.A.
FP10
VREF_H 1
ZOOM 2
VREF_L 3
GND 4
PHOTO 5
SS 6
STBY_LED 7
GND(LED) 8
POWER_LED 9
CAM_KEY_1 10
MODE_VDD 11
NC 12
GND 13
STANDBY 14
NC 15
POWER 16
NC 17
DEW 18
R6
ZOOM
S8
PHOTO
D1
STANDBY
D2
POWER
S6
S/S
S5
STANDBY
S7
POWER
R0
DEW SENSOR
R1
R2
R3
R4
R5
CARD REC
TAPE PLAY
TAPE REC
CARD PLAY
PC

LCD SW SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

NOTE:
LCD SW IS NOT SERVICEABLE AND IS
SUPPLIED AS A SHAFT CASE UNIT ONLY FOR REPLACEMENT.



REC VIDEO SIGNAL
PB VIDEO SIGNAL
TO MAIN C.B.A.
FP8
SW9001
K0L1BA000071
NORMAL/
REVERSE
TO LCD C.B.A.
FP8001
LCD_RVS 26
GND 25
LOAD 24
CLK 23
DATA 22
LCD_5V 21
LCD_5V 20
FRP 19
BL_CONT 18
LCD_HL 17
VSYNC 16
HSYNC 15
LCD_R 14
LCD_G 13
LCD_B 12
LCD_12V 11
LCD_M_R 10
LCD_M_G 9
LCD_M_B 8
LCD_3V 7
LCD_ON_H 6
LCD_-15V 5
VCOM 4
A_GND 3
A_GND 2
A_GND 1
25 GND
24 LOAD
23 CLK
22 DATA
21 LCD_5V
20 LCD_5V
19 FRP
18 BL_CONT
17 LCD_HL
16 VSYNC
15 HSYNC
14 LCD_R
13 LCD_G
12 LCD_B
11 LCD_12V
10 LCD_M_R
9 LCD_M_G
8 LCD_M_B
7 LCD_3V
6 LCD_ON_H
5 LCD_-15V
4 VCOM
3 A_GND
2 A_GND
1 A_GND

CCD SCHEMATIC DIAGRAM
SIDE CASE L SCHEMATIC DIAGRAM
LCD SW SCHEMATIC DIAGRAM

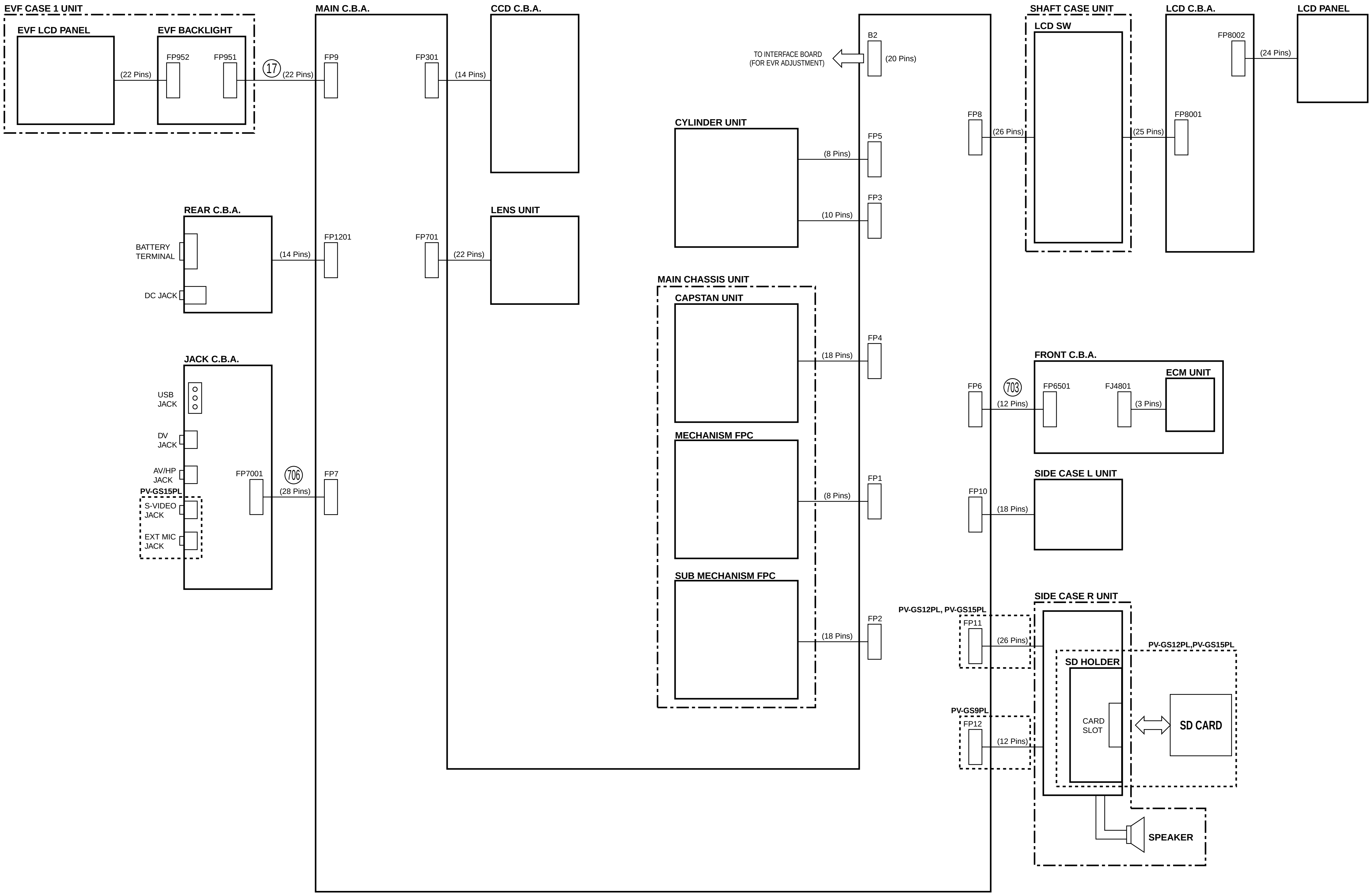
PV-GS9PL/PV-GS12PL/PV-GS15PL

INTERCONNECTION SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

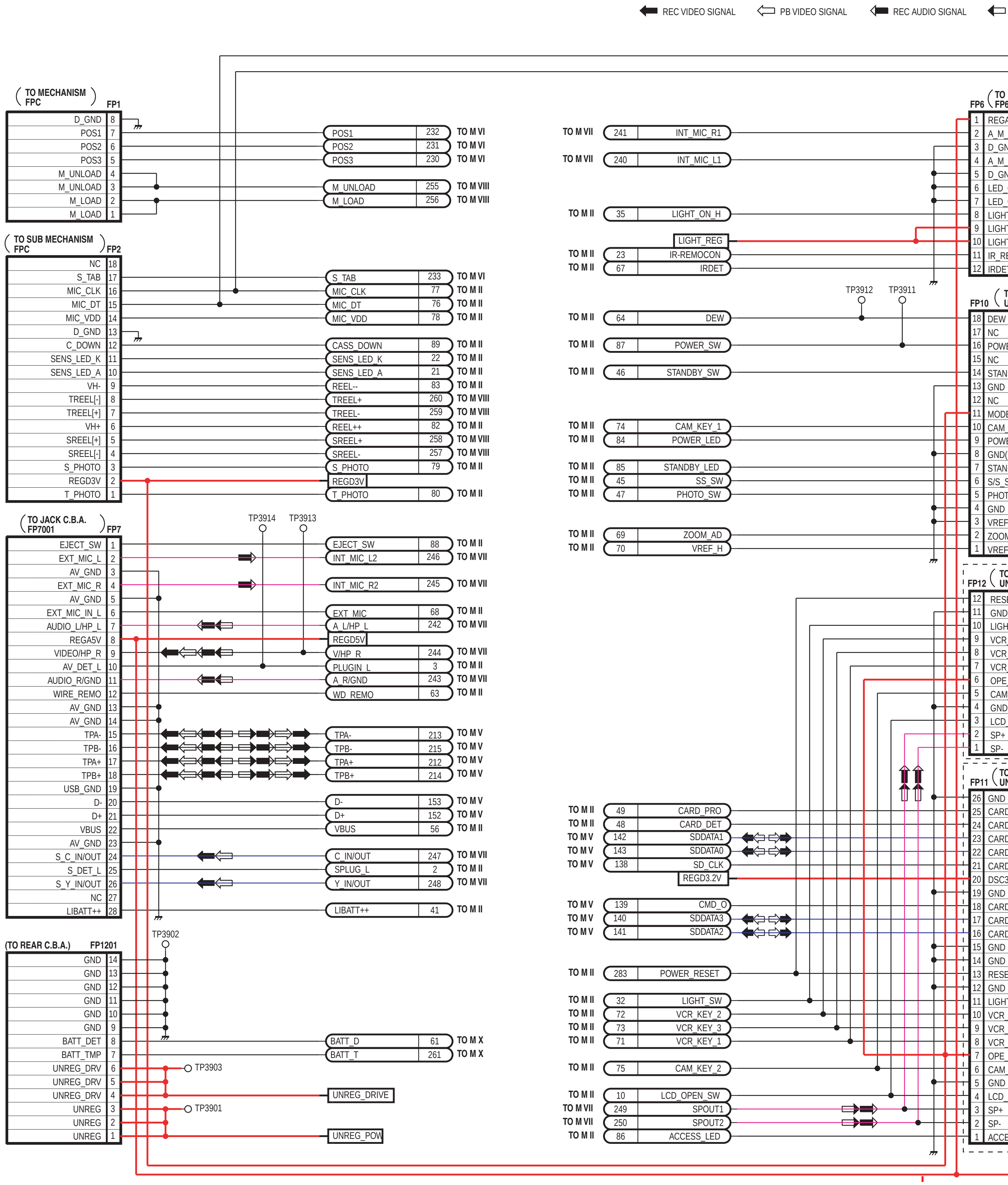

EVF CASE 1 UNIT
EVF LCD PANEL
EVF BACKLIGHT
FP952
FP951
(22 Pins)
17
(22 Pins)
MAIN C.B.A.
FP9
FP301
(14 Pins)
CCD C.B.A.
REAR C.B.A.
BATTERY TERMINAL
DC JACK
(14 Pins)
FP1201
FP701
(22 Pins)
LENS UNIT
JACK C.B.A.
USB JACK
DV JACK
AV/HP JACK
PV-GS15PL
S-VIDEO JACK
EXT MIC JACK
FP7001
706
(28 Pins)
FP7
TO INTERFACE BOARD (FOR EVR ADJUSTMENT)
B2
(20 Pins)
CYLINDER UNIT
FP5
(8 Pins)
FP3
(10 Pins)
MAIN CHASSIS UNIT
CAPSTAN UNIT
FP4
(18 Pins)
MECHANISM FPC
FP1
(8 Pins)
SUB MECHANISM FPC
FP2
(18 Pins)
SHAFT CASE UNIT
LCD SW
FP8
(26 Pins)
(25 Pins)
LCD C.B.A.
FP8001
FP8002
(24 Pins)
LCD PANEL
FRONT C.B.A.
FP6
703
(12 Pins)
FP6501
FJ4801
(3 Pins)
ECM UNIT
SIDE CASE L UNIT
FP10
(18 Pins)
SIDE CASE R UNIT
PV-GS12PL, PV-GS15PL
FP11
(26 Pins)
PV-GS12PL,PV-GS15PL
SD HOLDER
CARD SLOT
SD CARD
PV-GS9PL
FP12
(12 Pins)
SPEAKER

INTERCONNECTION SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

9.2. MAIN SCHEMATIC DIAGRAMS

MAIN I SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

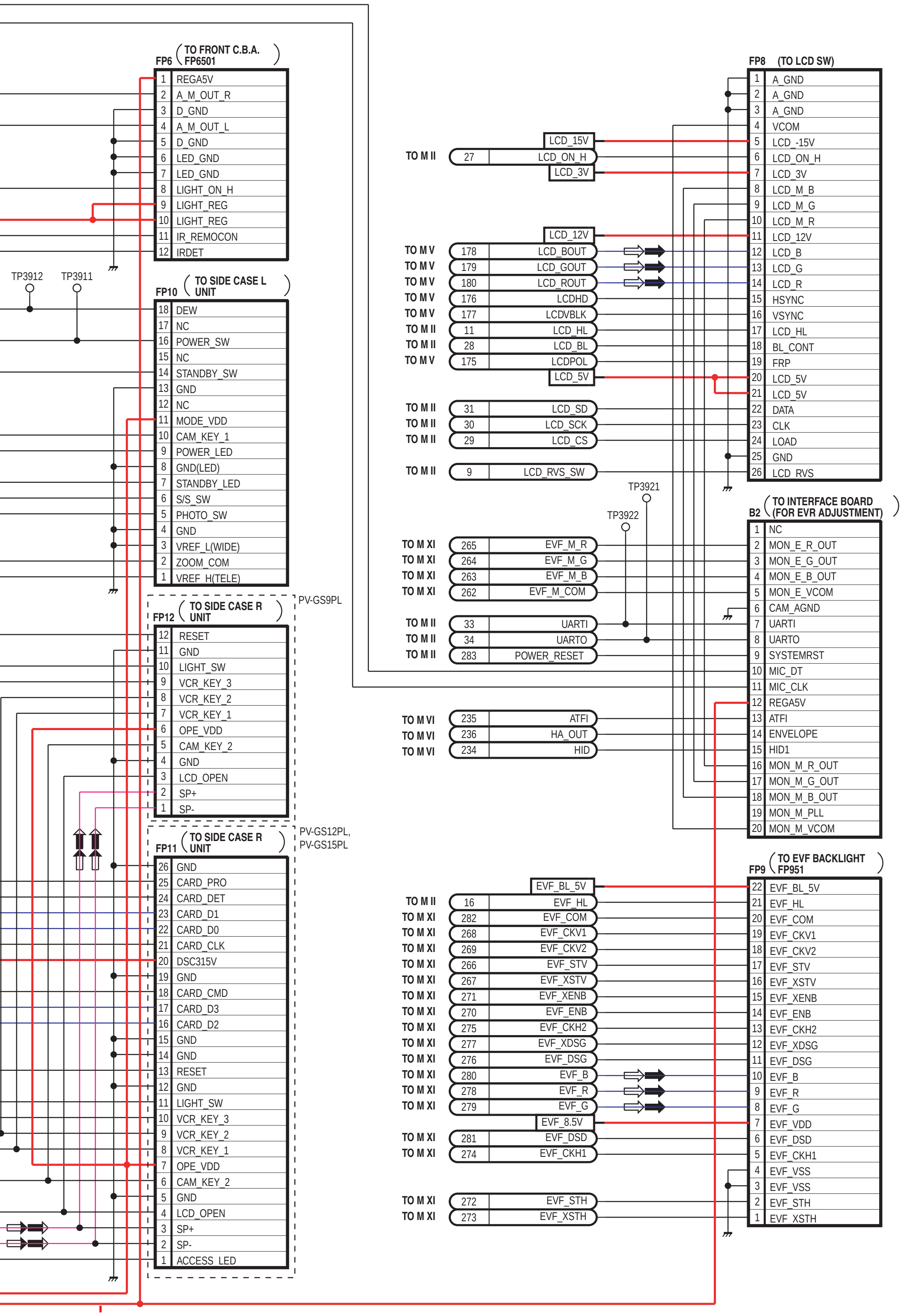

REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
TO MECHANISM FPC
FP1
D_GND 8
POS1 7
POS2 6
POS3 5
M_UNLOAD 4
M_UNLOAD 3
M_LOAD 2
M_LOAD 1
POS1 232 TO M VI
POS2 231 TO M VI
POS3 230 TO M VI
M_UNLOAD 255 TO M VIII
M_LOAD 256 TO M VIII
TO SUB MECHANISM FPC
FP2
NC 18
S_TAB 17
MIC_CLK 16
MIC_DT 15
MIC_VDD 14
D_GND 13
C_DOWN 12
SENS_LED_K 11
SENS_LED_A 10
VH- 9
TREEL[-] 8
TREEL[+] 7
VH+ 6
SREEL[+] 5
SREEL[-] 4
S_PHOTO 3
REGD3V 2
T_PHOTO 1
S_TAB 233 TO M VI
MIC_CLK 77 TO M II
MIC_DT 76 TO M II
MIC_VDD 78 TO M II
CASS_DOWN 89 TO M II
SENS_LED_K 22 TO M II
SENS_LED_A 21 TO M II
REEL-- 83 TO M II
TREEL+ 260 TO M VIII
TREEL- 259 TO M VIII
REEL++ 82 TO M II
SREEL+ 258 TO M VIII
SREEL- 257 TO M VIII
S_PHOTO 79 TO M II
REGD3V
T_PHOTO 80 TO M II
TO JACK C.B.A. FP7001
FP7
EJECT_SW 1
EXT_MIC_L 2
AV_GND 3
EXT_MIC_R 4
AV_GND 5
EXT_MIC_IN_L 6
AUDIO_L/HP_L 7
REGA5V 8
VIDEO/HP_R 9
AV_DET_L 10
AUDIO_R/GND 11
WIRE_REMO 12
AV_GND 13
AV_GND 14
TPA- 15
TPB- 16
TPA+ 17
TPB+ 18
USB_GND 19
D- 20
D+ 21
VBUS 22
AV_GND 23
S_C_IN/OUT 24
S_DET_L 25
S_Y_IN/OUT 26
NC 27
LIBATT++ 28
TP3914
TP3913
EJECT_SW 88 TO M II
INT_MIC_L2 246 TO M VII
INT_MIC_R2 245 TO M VII
EXT_MIC 68 TO M II
A_L/HP_L 242 TO M VII
REGD5V
V/HP_R 244 TO M VII
PLUGIN_L 3 TO M II
A_R/GND 243 TO M VII
WD_REMO 63 TO M II
TPA- 213 TO M V
TPB- 215 TO M V
TPA+ 212 TO M V
TPB+ 214 TO M V
D- 153 TO M V
D+ 152 TO M V
VBUS 56 TO M II
C_IN/OUT 247 TO M VII
SPLUG_L 2 TO M II
Y_IN/OUT 248 TO M VII
LIBATT++ 41 TO M II
TP3902
(TO REAR C.B.A.) FP1201
GND 14
GND 13
GND 12
GND 11
GND 10
GND 9
BATT_DET 8
BATT_TMP 7
UNREG_DRV 6
UNREG_DRV 5
UNREG_DRV 4
UNREG 3
UNREG 2
UNREG 1
TP3903
TP3901
BATT_D 61 TO M X
BATT_T 261 TO M X
UNREG_DRIVE
UNREG_POW
TO M VII 241 INT_MIC_R1
TO M VII 240 INT_MIC_L1
TO M II 35 LIGHT_ON_H
LIGHT_REG
TO M II 23 IR-REMOCON
TO M II 67 IRDET
TP3912
TP3911
TO M II 64 DEW
TO M II 87 POWER_SW
TO M II 46 STANDBY_SW
TO M II 74 CAM_KEY_1
TO M II 84 POWER_LED
TO M II 85 STANDBY_LED
TO M II 45 SS_SW
TO M II 47 PHOTO_SW
TO M II 69 ZOOM_AD
TO M II 70 VREF_H
TO M II 49 CARD_PRO
TO M II 48 CARD_DET
TO M V 142 SDDATA1
TO M V 143 SDDATA0
TO M V 138 SD_CLK
REGD3.2V
TO M V 139 CMD_O
TO M V 140 SDDATA3
TO M V 141 SDDATA2
TO M II 283 POWER_RESET
TO M II 32 LIGHT_SW
TO M II 72 VCR_KEY_2
TO M II 73 VCR_KEY_3
TO M II 71 VCR_KEY_1
TO M II 75 CAM_KEY_2
TO M II 10 LCD_OPEN_SW
TO M VII 249 SPOUT1
TO M VII 250 SPOUT2
TO M II 86 ACCESS_LED
FP6
TO
FP6
1 REGA
2 A_M
3 D_GN
4 A_M
5 D_GN
6 LED
7 LED
8 LIGH
9 LIGH
10 LIGH
11 IR_RE
12 IRDE
FP10
18 DEW
17 NC
16 POWE
15 NC
14 STAN
13 GND
12 NC
11 MODE
10 CAM
9 POWE
8 GND(
7 STAN
6 S/S_S
5 PHOT
4 GND
3 VREF
2 ZOOM
1 VREF
FP12
TO
UN
12 RESI
11 GND
10 LIGH
9 VCR
8 VCR
7 VCR
6 OPE
5 CAM
4 GND
3 LCD
2 SP+
1 SP-
FP11
TO
UN
26 GND
25 CARD
24 CARD
23 CARD
22 CARD
21 CARD
20 DSC3
19 GND
18 CARD
17 CARD
16 CARD
15 GND
14 GND
13 RESE
12 GND
11 LIGH
10 VCR
9 VCR
8 VCR
7 OPE
6 CAM
5 GND
4 LCD
3 SP+
2 SP-
1 ACCE

order of the parts,
number listed in the parts list.
nber on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NAL ⬅ REC AUDIO SIGNAL ⇦ PB AUDIO SIGNAL

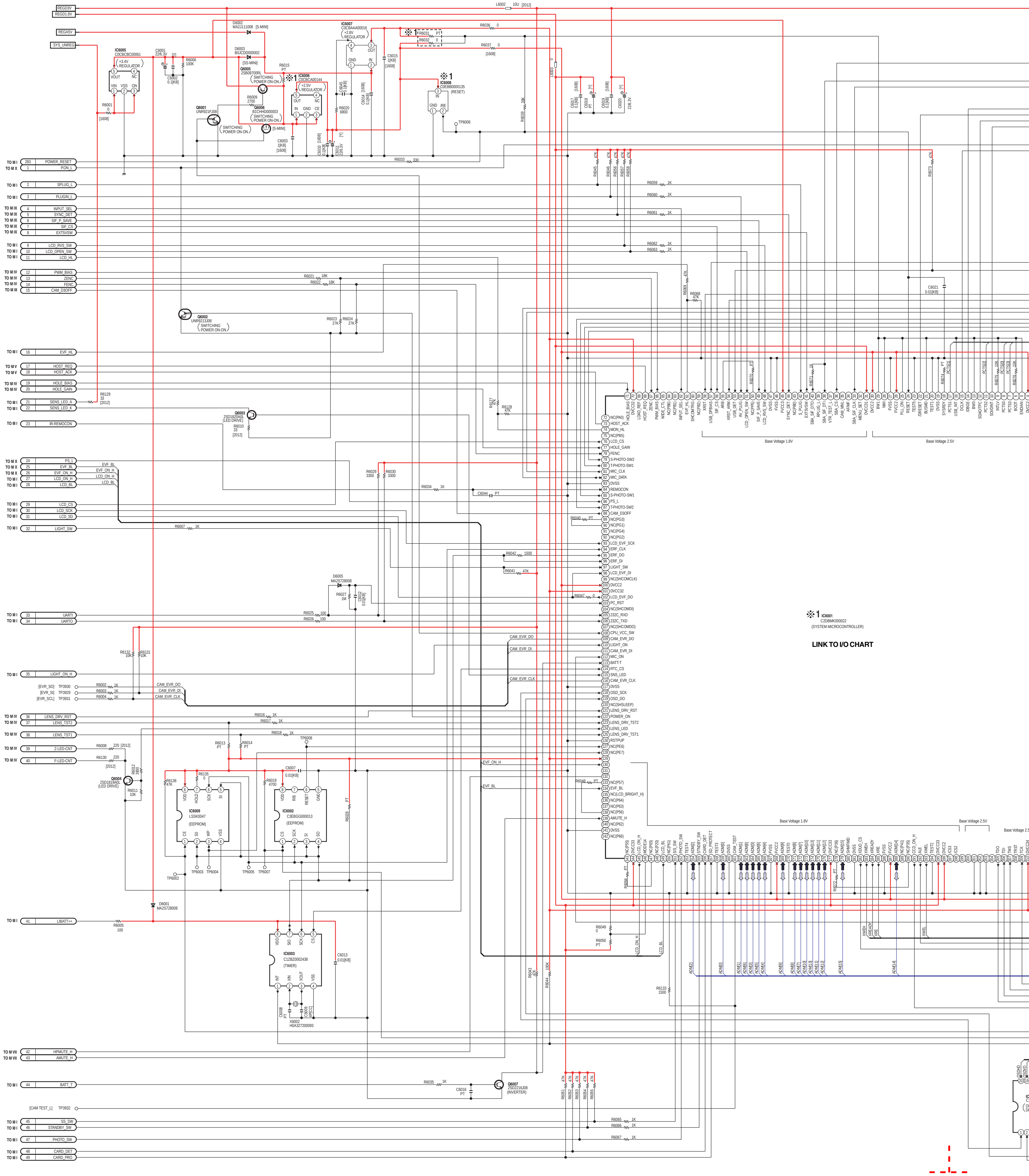


FP6 (TO FRONT C.B.A. FP6501)
1 REGA5V
2 A_M_OUT_R
3 D_GND
4 A_M_OUT_L
5 D_GND
6 LED_GND
7 LED_GND
8 LIGHT_ON_H
9 LIGHT_REG
10 LIGHT_REG
11 IR_REMOCON
12 IRDET
TP3912
TP3911
FP10 (TO SIDE CASE L UNIT)
18 DEW
17 NC
16 POWER_SW
15 NC
14 STANDBY_SW
13 GND
12 NC
11 MODE_VDD
10 CAM_KEY_1
9 POWER_LED
8 GND(LED)
7 STANDBY_LED
6 S/S_SW
5 PHOTO_SW
4 GND
3 VREF_L(WIDE)
2 ZOOM_COM
1 VREF_H(TELE)
PV-GS9PL
FP12 (TO SIDE CASE R UNIT)
12 RESET
11 GND
10 LIGHT_SW
9 VCR_KEY_3
8 VCR_KEY_2
7 VCR_KEY_1
6 OPE_VDD
5 CAM_KEY_2
4 GND
3 LCD_OPEN
2 SP+
1 SP-
PV-GS12PL, PV-GS15PL
FP11 (TO SIDE CASE R UNIT)
26 GND
25 CARD_PRO
24 CARD_DET
23 CARD_D1
22 CARD_D0
21 CARD_CLK
20 DSC315V
19 GND
18 CARD_CMD
17 CARD_D3
16 CARD_D2
15 GND
14 GND
13 RESET
12 GND
11 LIGHT_SW
10 VCR_KEY_3
9 VCR_KEY_2
8 VCR_KEY_1
7 OPE_VDD
6 CAM_KEY_2
5 GND
4 LCD_OPEN
3 SP+
2 SP-
1 ACCESS_LED
LCD_15V
TO M II 27 LCD_ON_H
LCD_3V
LCD_12V
TO M V 178 LCD_BOUT
TO M V 179 LCD_GOUT
TO M V 180 LCD_ROUT
TO M V 176 LCDHD
TO M V 177 LCDVBLK
TO M II 11 LCD_HL
TO M II 28 LCD_BL
TO M V 175 LCDPOL
LCD_5V
TO M II 31 LCD_SD
TO M II 30 LCD_SCK
TO M II 29 LCD_CS
TO M II 9 LCD_RVS_SW
TP3921
TP3922
TO M XI 265 EVF_M_R
TO M XI 264 EVF_M_G
TO M XI 263 EVF_M_B
TO M XI 262 EVF_M_COM
TO M II 33 UARTI
TO M II 34 UARTO
TO M II 283 POWER_RESET
TO M VI 235 ATFI
TO M VI 236 HA_OUT
TO M VI 234 HID
EVF_BL_5V
TO M II 16 EVF_HL
TO M XI 282 EVF_COM
TO M XI 268 EVF_CKV1
TO M XI 269 EVF_CKV2
TO M XI 266 EVF_STV
TO M XI 267 EVF_XSTV
TO M XI 271 EVF_XENB
TO M XI 270 EVF_ENB
TO M XI 275 EVF_CKH2
TO M XI 277 EVF_XDSG
TO M XI 276 EVF_DSG
TO M XI 280 EVF_B
TO M XI 278 EVF_R
TO M XI 279 EVF_G
EVF_8.5V
TO M XI 281 EVF_DSD
TO M XI 274 EVF_CKH1
TO M XI 272 EVF_STH
TO M XI 273 EVF_XSTH
FP8 (TO LCD SW)
1 A_GND
2 A_GND
3 A_GND
4 VCOM
5 LCD_-15V
6 LCD_ON_H
7 LCD_3V
8 LCD_M_B
9 LCD_M_G
10 LCD_M_R
11 LCD_12V
12 LCD_B
13 LCD_G
14 LCD_R
15 HSYNC
16 VSYNC
17 LCD_HL
18 BL_CONT
19 FRP
20 LCD_5V
21 LCD_5V
22 DATA
23 CLK
24 LOAD
25 GND
26 LCD_RVS
B2 (TO INTERFACE BOARD (FOR EVR ADJUSTMENT))
1 NC
2 MON_E_R_OUT
3 MON_E_G_OUT
4 MON_E_B_OUT
5 MON_E_VCOM
6 CAM_AGND
7 UARTI
8 UARTO
9 SYSTEMRST
10 MIC_DT
11 MIC_CLK
12 REGA5V
13 ATFI
14 ENVELOPE
15 HID1
16 MON_M_R_OUT
17 MON_M_G_OUT
18 MON_M_B_OUT
19 MON_M_PLL
20 MON_M_VCOM
FP9 (TO EVF BACKLIGHT FP951)
22 EVF_BL_5V
21 EVF_HL
20 EVF_COM
19 EVF_CKV1
18 EVF_CKV2
17 EVF_STV
16 EVF_XSTV
15 EVF_XENB
14 EVF_ENB
13 EVF_CKH2
12 EVF_XDSG
11 EVF_DSG
10 EVF_B
9 EVF_R
8 EVF_G
7 EVF_VDD
6 EVF_DSD
5 EVF_CKH1
4 EVF_VSS
3 EVF_VSS
2 EVF_STH
1 EVF_XSTH

LINK TO VOLTAGE CHART

LSJB8262
MAIN I SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN II SCHEMATIC DIAGRAM


REGD3V
REGD1.8V
REGA5V
SYS_UNREG
IC6005 C0CBCBC00061 +3.4V REGULATOR
IC6006 C0CBCAA00144 +2.5V REGULATOR
IC6007 C0CBAAA00016 +2.8V REGULATOR
IC6008 C0EBB0000135 (RESET)
Q6001 UNR921FJ08 SWITCHING POWER ON-ON
Q6005 2SB0970ORL SWITCHING POWER ON-ON
Q6006 B1CHHD000003 SWITCHING POWER ON-ON
Q6002 UNR921J08 SWITCHING POWER ON-ON
Q6003 2SD1819A0L (LED DRIVE)
Q6004 2SD1819A0L (LED DRIVE)
Q6007 2SD2216J08 (INVERTER)
D6002 MA2J111008 [S-MINI]
D6003 B0JCDD000002 [SS-MINI]
D6005 MA2S728008
D6001 MA2S728008
L6002 10U [2012]
IC6009 LSSK0047 (EEPROM)
IC6002 C3EBGG000013 (EEPROM)
IC6003 C1ZBZ0002438 (TIMER)
X6002 H0A327200093
TO M I 283 POWER_RESET
TO M X 1 PON_L
TO M I 2 SPLUG_L
TO M I 3 PLUGIN_L
TO M IX 4 INPUT_SEL
TO M IX 5 SYNC_DET
TO M IX 6 SIF_P_SAVE
TO M IX 7 SIF_CS
TO M IX 8 EXTSVSW
TO M I 9 LCD_RVS_SW
TO M I 10 LCD_OPEN_SW
TO M I 11 LCD_HL
TO M IV 12 PWM_BIAS
TO M IV 13 ZENC
TO M IV 14 FENC
TO M I 15 CAM_D3OFF
TO M I 16 EVF_HL
TO M V 17 HOST_REQ
TO M V 18 HOST_ACK
TO M V 19 HOLE_BIAS
TO M V 20 HOLE_GAIN
TO M I 21 SENS_LED_A
TO M I 22 SENS_LED_K
TO M I 23 IR-REMOCON
TO M X 24 PS_L
TO M X 25 EVF_BL
TO M X 26 EVF_ON_H
TO M I 27 LCD_ON_H
TO M I 28 LCD_BL
TO M I 29 LCD_CS
TO M I 30 LCD_SCK
TO M I 31 LCD_SD
TO M I 32 LIGHT_SW
TO M I 33 UARTI
TO M I 34 UARTO
TO M I 35 LIGHT_ON_H
[EVR_SO] TP3930
[EVR_SI] TP3929
[EVR_SCL] TP3931
TO M IV 36 LENS_DRV_RST
TO M IV 37 LENS_TST2
TO M IV 38 LENS_TST1
TO M IV 39 Z-LED-CNT
TO M IV 40 F-LED-CNT
TO M I 41 LIBATT+
TO M VII 42 HPMUTE_H
TO M VII 43 AMUTE_H
TO M I 44 BATT_T
[CAM TEST_L] TP3932
TO M I 45 SS_SW
TO M I 46 STANDBY_SW
TO M I 47 PHOTO_SW
TO M I 48 CARD_DET
TO M I 49 CARD_PRO
※1 IC6001 C2DBMK000022 (SYSTEM MICROCONTROLLER)
LINK TO I/O CHART
Base Voltage 1.8V
Base Voltage 2.5V

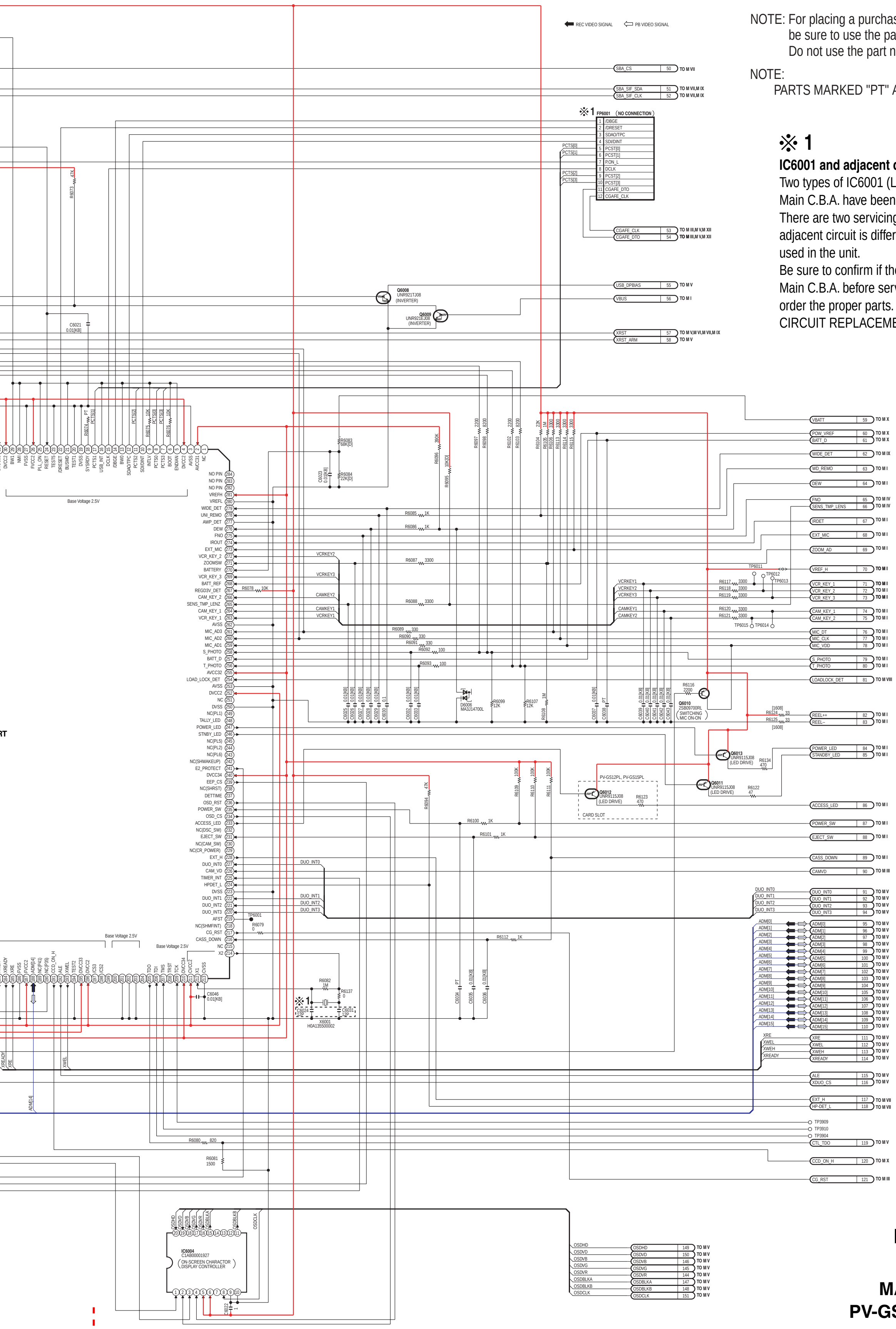
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts, be sure to use the part number listed in the parts list. Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

※ 1

IC6001 and adjacent circuit replacement note:
Two types of IC6001 (LSSK0045, C2DBMK000022) on the Main C.B.A. have been used on a running change basis. There are two servicing methods (Type A, B) because the adjacent circuit is different depending on which IC6001 is used in the unit.
Be sure to confirm if there is the connector (FP6001) on the Main C.B.A. before servicing. When replacing, be sure to order the proper parts. Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES.

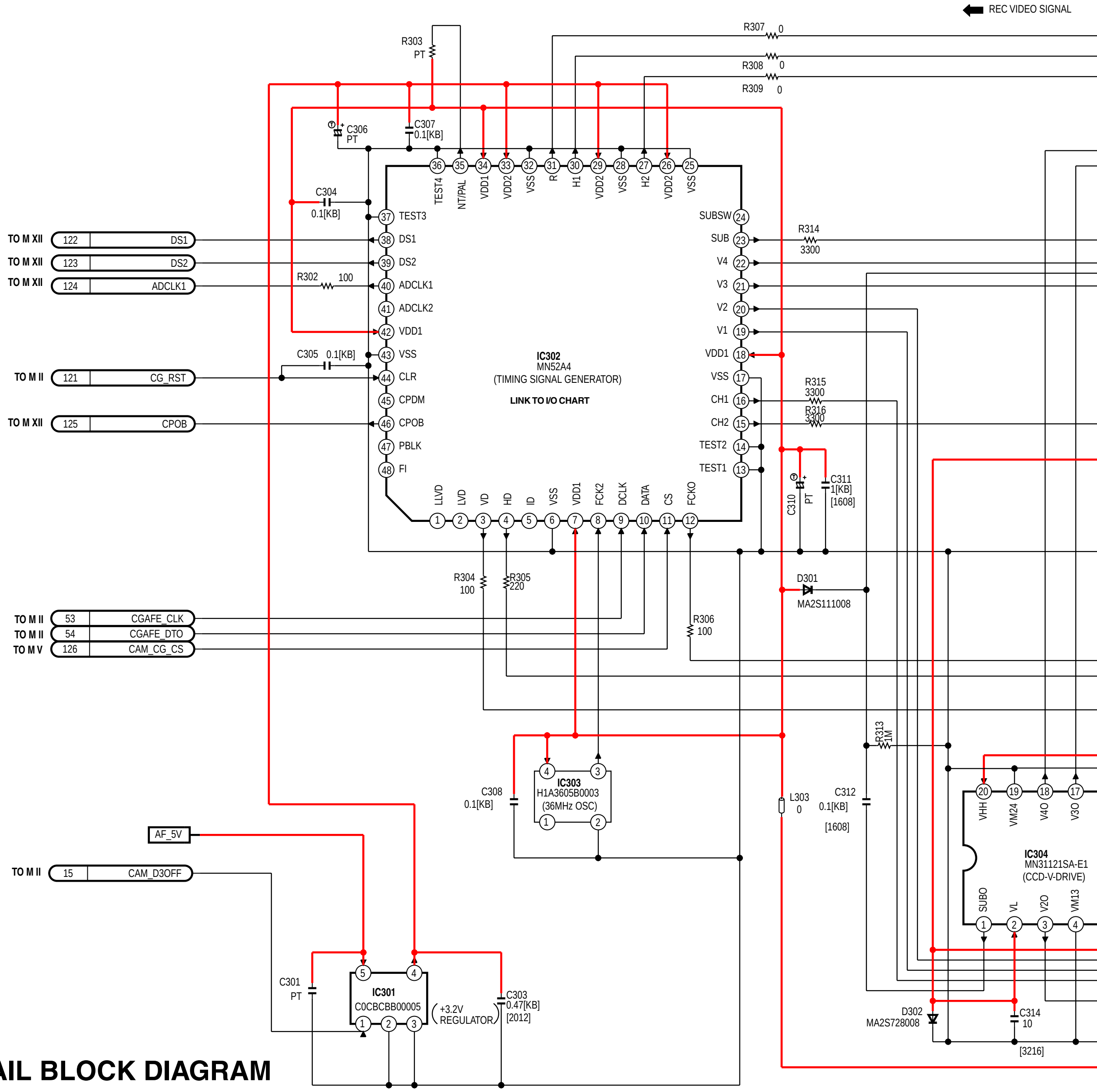

REC VIDEO SIGNAL
PB VIDEO SIGNAL
※1 FP6001 (NO CONNECTION)
Q6008 UNR921TJ08 (INVERTER)
Q6009 UNR921EJ08 (INVERTER)
Q6010 2SB0970ORL SWITCHING MIC ON-ON
Q6011 UNR9115J08 (LED DRIVE)
Q6012 UNR9115J08 (LED DRIVE)
Q6013 UNR9115J08 (LED DRIVE)
PV-GS12PL, PV-GS15PL
CARD SLOT
D6006 MA3J147OOL
X6001 H0A135500002
IC6004 C1AB00001927 (ON-SCREEN CHARACTOR DISPLAY CONTROLLER)
Base Voltage 2.5V
SBA_CS 50 TO M VII
SBA_SIF_SDA 51 TO M VII,M IX
SBA_SIF_CLK 52 TO M VII,M IX
CGAFE_CLK 53 TO M III,M V,M XII
CGAFE_DTO 54 TO M III,M V,M XII
USB_DPBIAS 55 TO M V
VBUS 56 TO M I
XRST 57 TO M V,M VII,M VIII,M IX
XRST_ARM 58 TO M V
VBATT 59 TO M X
POW_VREF 60 TO M X
BATT_D 61 TO M X
WIDE_DET 62 TO M IX
WD_REMO 63 TO M I
DEW 64 TO M I
FNO 65 TO M IV
SENS_TMP_LENS 66 TO M IV
IRDET 67 TO M I
EXT_MIC 68 TO M I
ZOOM_AD 69 TO M I
VREF_H 70 TO M I
VCR_KEY_1 71 TO M I
VCR_KEY_2 72 TO M I
VCR_KEY_3 73 TO M I
CAM_KEY_1 74 TO M I
CAM_KEY_2 75 TO M I
MIC_DT 76 TO M I
MIC_CLK 77 TO M I
MIC_VDD 78 TO M I
S_PHOTO 79 TO M I
T_PHOTO 80 TO M I
LOADLOCK_DET 81 TO M VIII
REEL+ 82 TO M I
REEL– 83 TO M I
POWER_LED 84 TO M I
STANDBY_LED 85 TO M I
ACCESS_LED 86 TO M I
POWER_SW 87 TO M I
EJECT_SW 88 TO M I
CASS_DOWN 89 TO M I
CAMVD 90 TO M III
DUO_INT0 91 TO M V
DUO_INT1 92 TO M V
DUO_INT2 93 TO M V
DUO_INT3 94 TO M V
ADM[0]–ADM[15] 95–110 TO M V
XRE 111 TO M V
XWEL 112 TO M V
XWEH 113 TO M V
XREADY 114 TO M V
ALE 115 TO M V
XDUO_CS 116 TO M V
EXT_H 117 TO M VIII
HP-DET_L 118 TO M VIII
TP3909
TP3910
TP3904
CTL_TDO 119 TO M V
CCD_ON_H 120 TO M X
CG_RST 121 TO M III
OSDHD 149 TO M V
OSDVD 150 TO M V
OSDVB 146 TO M V
OSDVG 145 TO M V
OSDVR 144 TO M V
OSDBLKA 147 TO M V
OSDBLKB 148 TO M V
OSDCLK 151 TO M V

LINK TO VOLTAGE CHART

LSJB8262
MAIN II SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

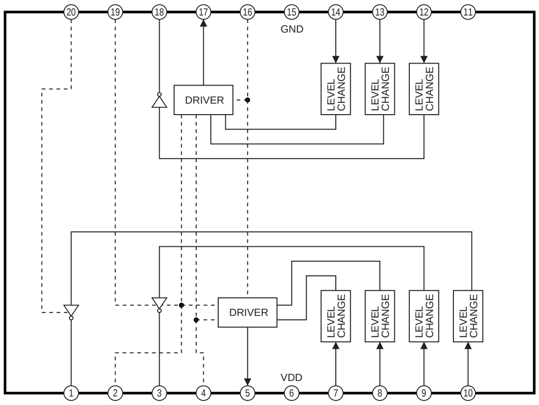
MAIN III SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.



REC VIDEO SIGNAL
R303
PT
R307 0
R308 0
R309 0
C306
PT
C307
0.1[KB]
C304
0.1[KB]
TO M XII 122 DS1
TO M XII 123 DS2
TO M XII 124 ADCLK1
R302 100
C305 0.1[KB]
TO M II 121 CG_RST
TO M XII 125 CPOB
36 TEST4
35 NT/PAL
34 VDD1
33 VDD2
32 VSS
31 R
30 H1
29 VDD2
28 VSS
27 H2
26 VDD2
25 VSS
37 TEST3
38 DS1
39 DS2
40 ADCLK1
41 ADCLK2
42 VDD1
43 VSS
44 CLR
45 CPDM
46 CPOB
47 PBLK
48 FI
24 SUBSW
23 SUB
22 V4
21 V3
20 V2
19 V1
18 VDD1
17 VSS
16 CH1
15 CH2
14 TEST2
13 TEST1
1 LLVD
2 LVD
3 VD
4 HD
5 ID
6 VSS
7 VDD1
8 FCK2
9 DCLK
10 DATA
11 CS
12 FCKO
IC302
MN52A4
(TIMING SIGNAL GENERATOR)
LINK TO I/O CHART
R314
3300
R315
3300
R316
3300
C310
PT
C311
1[KB]
[1608]
R304
100
R305
220
D301
MA2S111008
R306
100
TO M II 53 CGAFE_CLK
TO M II 54 CGAFE_DTO
TO M V 126 CAM_CG_CS
R313
1M
C308
0.1[KB]
IC303
H1A3605B0003
(36MHz OSC)
L303
0
C312
0.1[KB]
[1608]
AF_5V
TO M II 15 CAM_D3OFF
C301
PT
IC301
C0CBCBB00005
(+3.2V REGULATOR)
C303
0.47[KB]
[2012]
20 VHH
19 VM24
18 V4O
17 V3O
1 SUBO
2 VL
3 V2O
4 VM13
IC304
MN31121SA-E1
(CCD-V-DRIVE)
D302
MA2S728008
C314
10
[3216]

IC304 IC- DETAIL BLOCK DIAGRAM

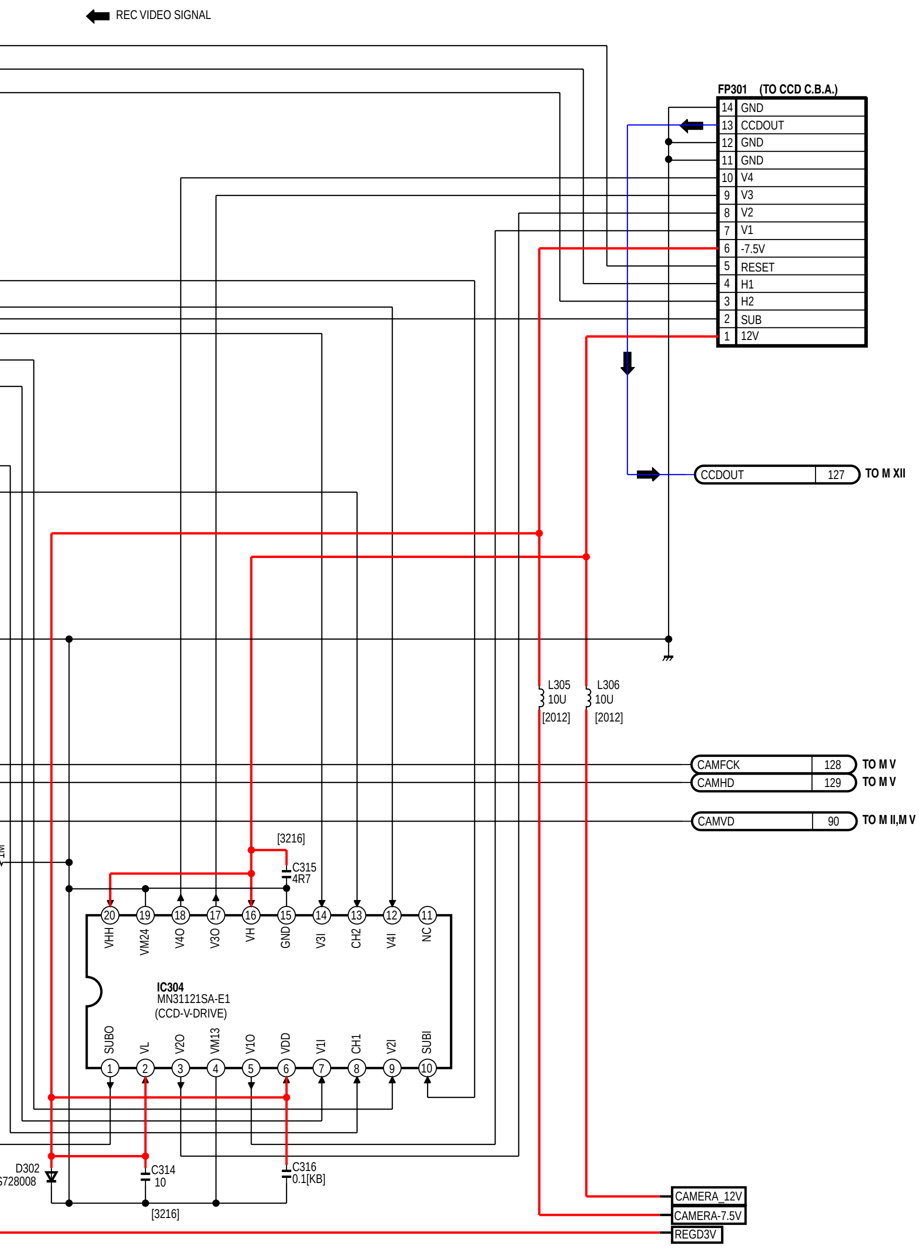


20
19
18
17
16
15
14
13
12
11
GND
DRIVER
LEVEL CHANGE
LEVEL CHANGE
LEVEL CHANGE
DRIVER
LEVEL CHANGE
LEVEL CHANGE
LEVEL CHANGE
LEVEL CHANGE
VDD
1
2
3
4
5
6
7
8
9
10

order of the parts,
number listed in the parts list.
mber on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC VIDEO SIGNAL
FP301 (TO CCD C.B.A.)
14 GND
13 CCDOUT
12 GND
11 GND
10 V4
9 V3
8 V2
7 V1
6 -7.5V
5 RESET
4 H1
3 H2
2 SUB
1 12V
CCDOUT 127 TO M XII
L305 10U [2012]
L306 10U [2012]
CAMFCK 128 TO M V
CAMHD 129 TO M V
CAMVD 90 TO M II,M V
[3216]
C315 4R7
VHH VM24 V4O V3O VH GND V3I CH2 V4I NC
20 19 18 17 16 15 14 13 12 11
IC304
MN31121SA-E1
(CCD-V-DRIVE)
SUBO VL V2O VM13 V1O VDD V1I CH1 V2I SUBI
1 2 3 4 5 6 7 8 9 10
D302
728008
C314 10
[3216]
C316 0.1[KB]
CAMERA_12V
CAMERA-7.5V
REGD3V

I/O CHART OF IC302

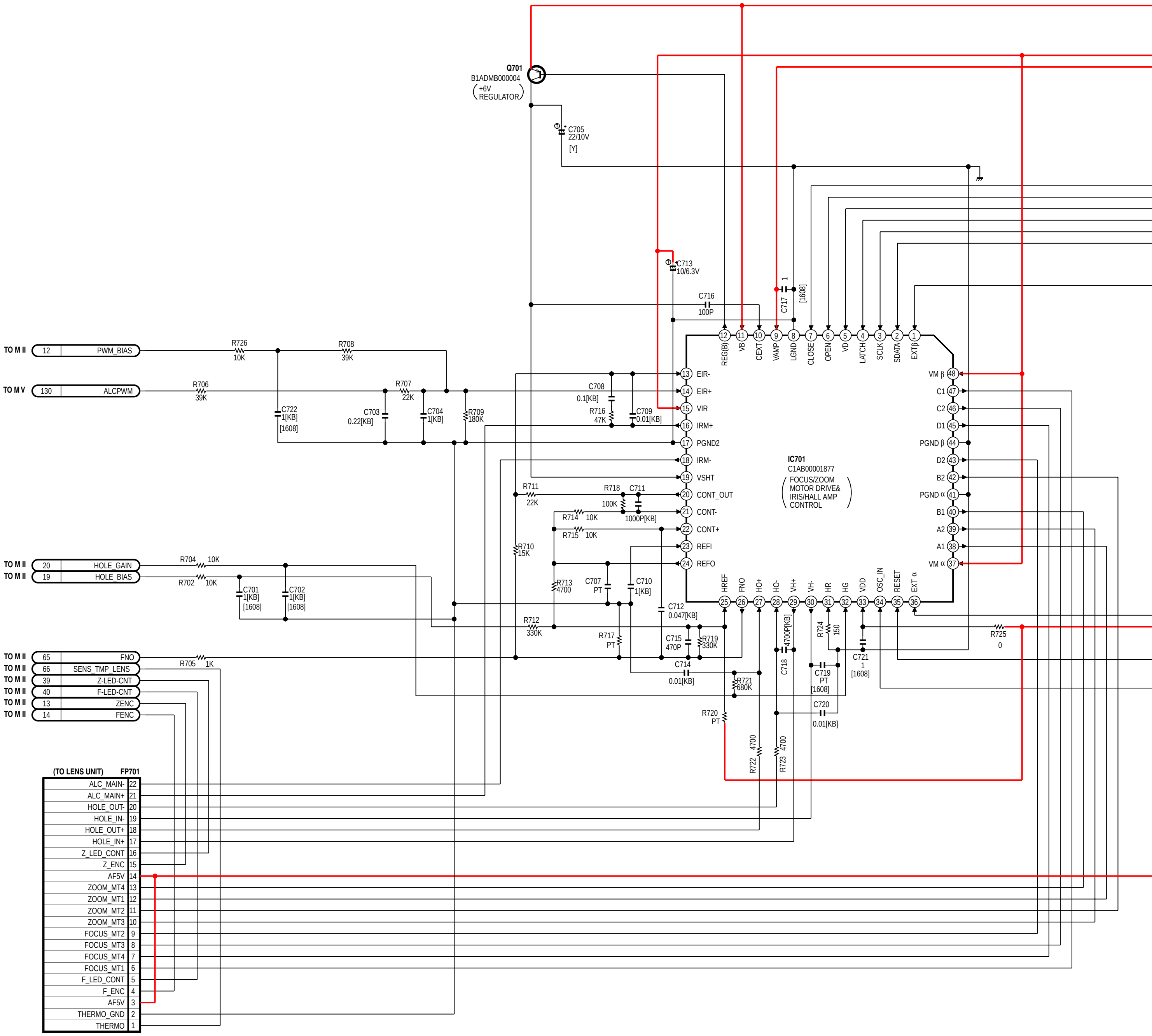
Pin No.	I/O	Signal Name	Description
1	-	LLVD	(Not used)
2	-	LVD	(Not used)
3	O	VD	V-sync pulse
4	O	HD	H-sync pulse
5	-	ID	(Not used)
6	-	VSS	Ground
7	I	VDD1	+3.0V
8	I	FCK2	2FCK clock (36MHz)
9	I	DCLK	TG serial clock
10	I	DATA	TG serial data
11	I	CS	TG chip select : low
12	O	FCK0	FCK clock (18MHz)
13	-	TEST1	(Not used)
14	-	TEST2	(Not used)
15	O	CH2	Charge pulse 2
16	O	CH1	Charge pulse 1
17	-	VSS	Ground
18	I	VDD1	+3.0V
19	O	V1	V1 pulse
20	O	V2	V2 pulse
21	O	V3	V3 pulse
22	O	V4	V4 pulse
23	O	SUB	Sub control pulse
24	-	SUBSW	(Not used)
25	-	VSS	Ground
26	I	VDD2	+3.2V
27	O	H2	H2 pulse
28	-	VSS	Ground
29	I	VDD2	+3.2V
30	O	H1	H1 pulse
31	O	R	Reset pulse
32	-	VSS	Ground
33	I	VDD2	+3.2V
34	I	VDD1	+3.0V
35	O	FCK6M	6MHz clock
36	-	TEST4	(Not used)
37	-	TEST3	(Not used)
38	O	DS1	Sampling pulse 1
39	O	DS2	Sampling pulse 2
40	O	ADCLK1	A/D clock 1
41	O	ADCLK2	A/D clock 2
42	I	VDD1	+3.0V
43	-	VSS	Ground
44	-	CLR	(Not used)
45	O	CPDM	Dummy clamp pulse
46	O	CPOB	Optical black clamp pulse
47	O	PBLK	Pre lanking pulse
48	-	FI	(Not used)

LINK TO VOLTAGE CHART

LSJB8262
MAIN III SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN IV SCHEMATIC DIAGRAM

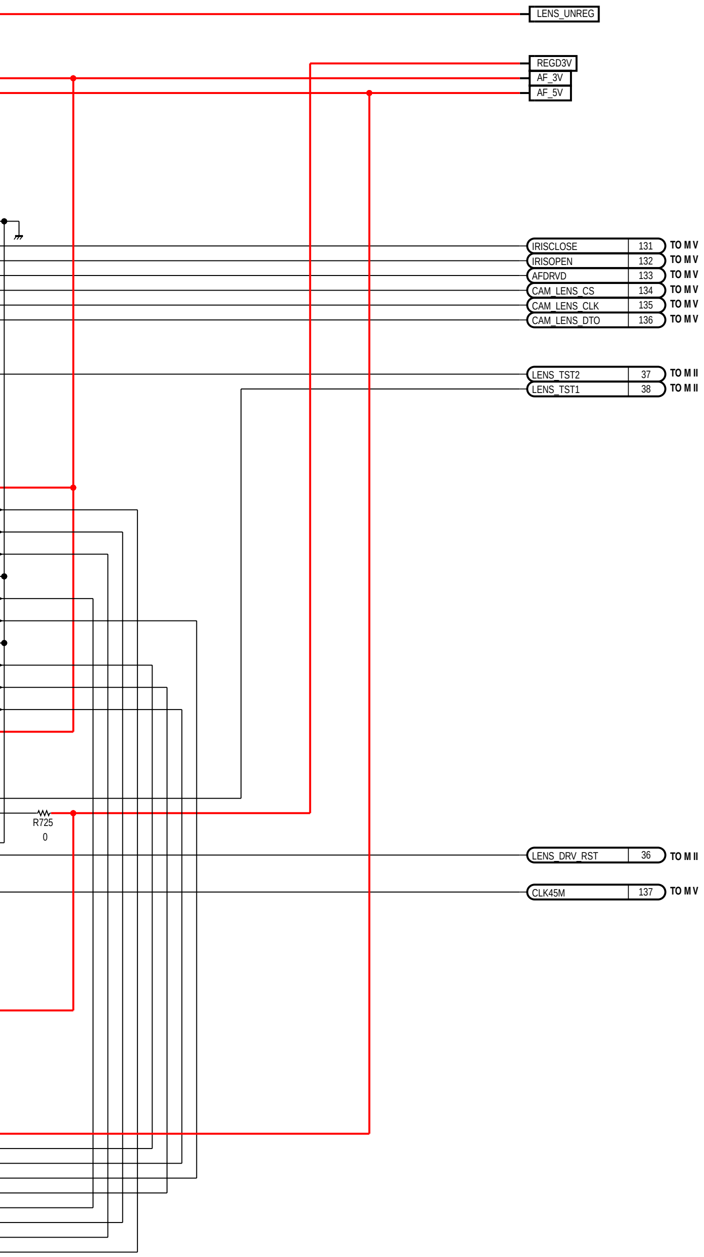
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.


Q701
B1ADMB000004
+6V REGULATOR
C705 22/10V [Y]
C713 10/6.3V
C716 100P
C717 1 [1608]
IC701
C1AB00001877
FOCUS/ZOOM MOTOR DRIVE& IRIS/HALL AMP CONTROL
1 EXTβ
2 SDATA
3 SCLK
4 LATCH
5 VD
6 OPEN
7 CLOSE
8 LGND
9 VAMP
10 CEXT
11 VB
12 REG(B)
13 EIR-
14 EIR+
15 VIR
16 IRM+
17 PGND2
18 IRM-
19 VSHT
20 CONT_OUT
21 CONT-
22 CONT+
23 REFI
24 REFO
25 HREF
26 FNO
27 HO+
28 HO-
29 VH+
30 VH-
31 HR
32 HG
33 VDD
34 OSC_IN
35 RESET
36 EXT α
37 VM α
38 A1
39 A2
40 B1
41 PGND α
42 B2
43 D2
44 PGND β
45 D1
46 C2
47 C1
48 VM β
TO M II 12 PWM_BIAS
TO M V 130 ALCPWM
TO M II 20 HOLE_GAIN
TO M II 19 HOLE_BIAS
TO M II 65 FNO
TO M II 66 SENS_TMP_LENS
TO M II 39 Z-LED-CNT
TO M II 40 F-LED-CNT
TO M II 13 ZENC
TO M II 14 FENC
R726 10K
R708 39K
R706 39K
R707 22K
C722 1[KB] [1608]
C703 0.22[KB]
C704 1[KB]
R709 180K
C708 0.1[KB]
R716 47K
C709 0.01[KB]
R711 22K
R718 100K
C711 1000P[KB]
R714 10K
R715 10K
R710 15K
R713 4700
C707 PT
C710 1[KB]
C712 0.047[KB]
R712 330K
R717 PT
C715 470P
R719 330K
C714 0.01[KB]
R721 680K
R720 PT
R722 4700
R723 4700
C718 4700P[KB]
R724 150
C719 PT [1608]
C720 0.01[KB]
C721 1 [1608]
R725 0
R704 10K
R702 10K
C701 1[KB] [1608]
C702 1[KB] [1608]
R705 1K
(TO LENS UNIT) FP701
ALC_MAIN- 22
ALC_MAIN+ 21
HOLE_OUT- 20
HOLE_IN- 19
HOLE_OUT+ 18
HOLE_IN+ 17
Z_LED_CONT 16
Z_ENC 15
AF5V 14
ZOOM_MT4 13
ZOOM_MT1 12
ZOOM_MT2 11
ZOOM_MT3 10
FOCUS_MT2 9
FOCUS_MT3 8
FOCUS_MT4 7
FOCUS_MT1 6
F_LED_CONT 5
F_ENC 4
AF5V 3
THERMO_GND 2
THERMO 1

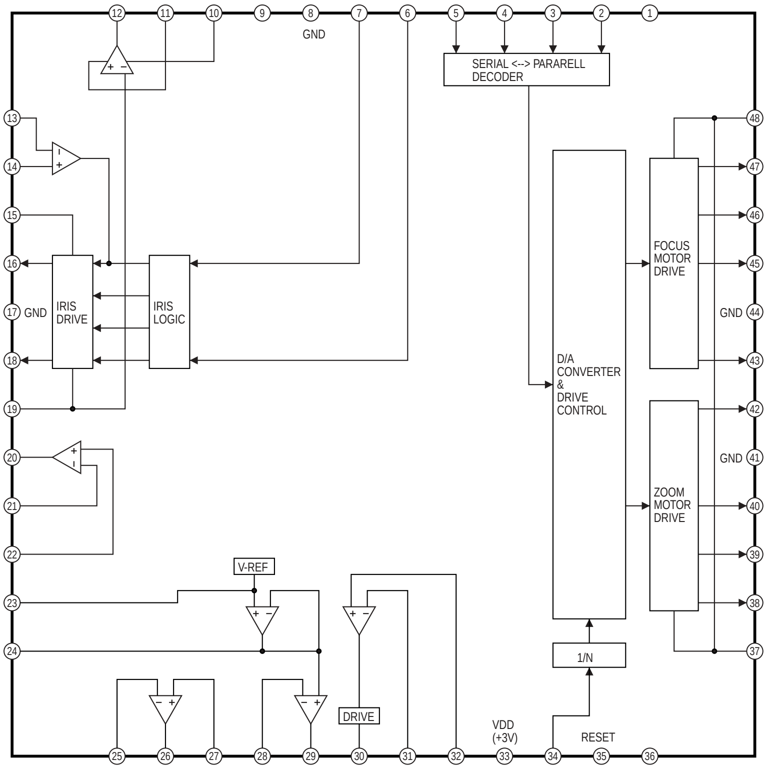
order of the parts,
number listed in the parts list.
nber on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


LENS_UNREG
REGD3V
AF_3V
AF_5V
IRISCLOSE 131 TO M V
IRISOPEN 132 TO M V
AFDRVD 133 TO M V
CAM_LENS_CS 134 TO M V
CAM_LENS_CLK 135 TO M V
CAM_LENS_DTO 136 TO M V
LENS_TST2 37 TO M II
LENS_TST1 38 TO M II
R725
0
LENS_DRV_RST 36 TO M II
CLK45M 137 TO M V

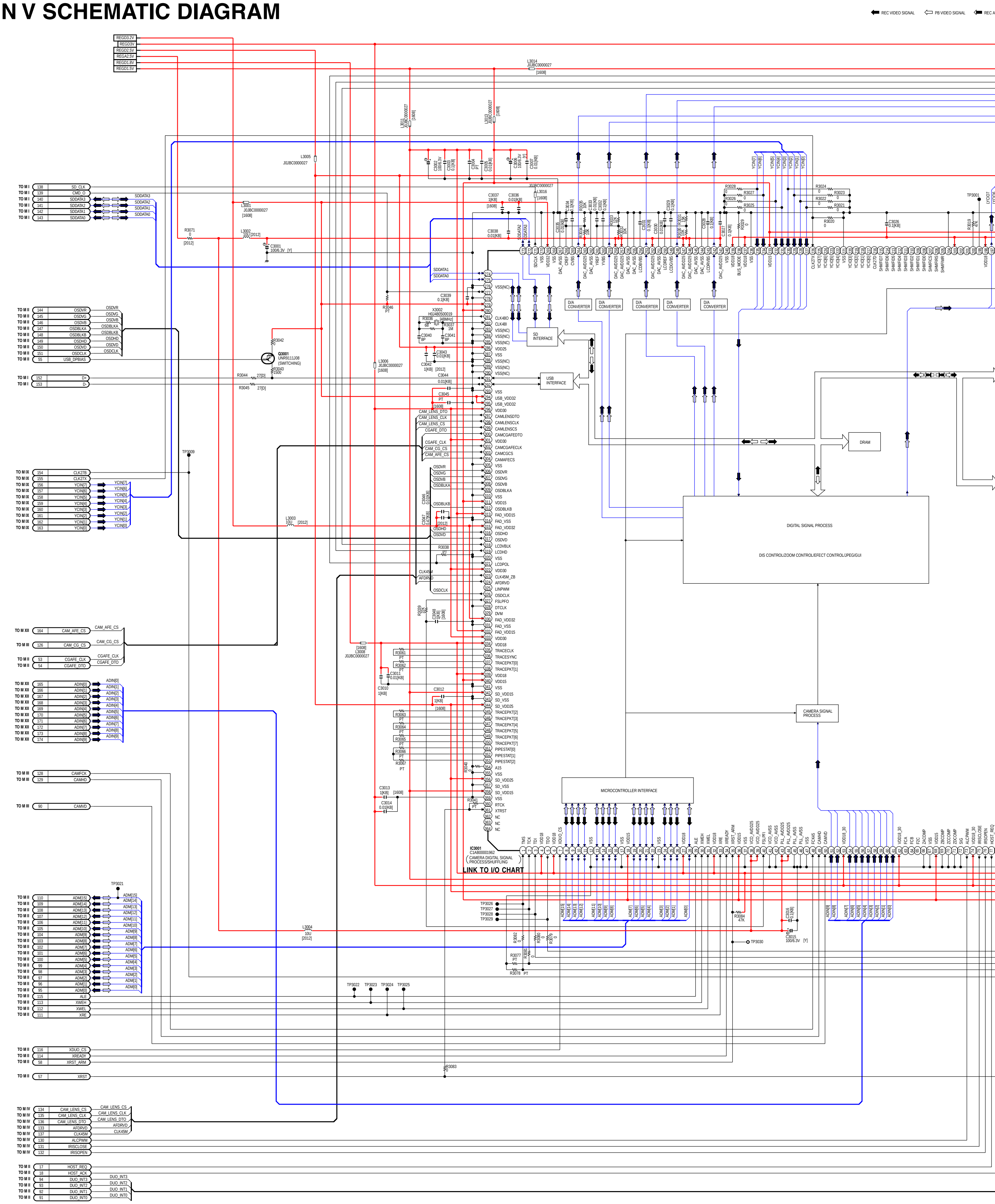
IC701 IC- DETAIL BLOCK DIAGRAM

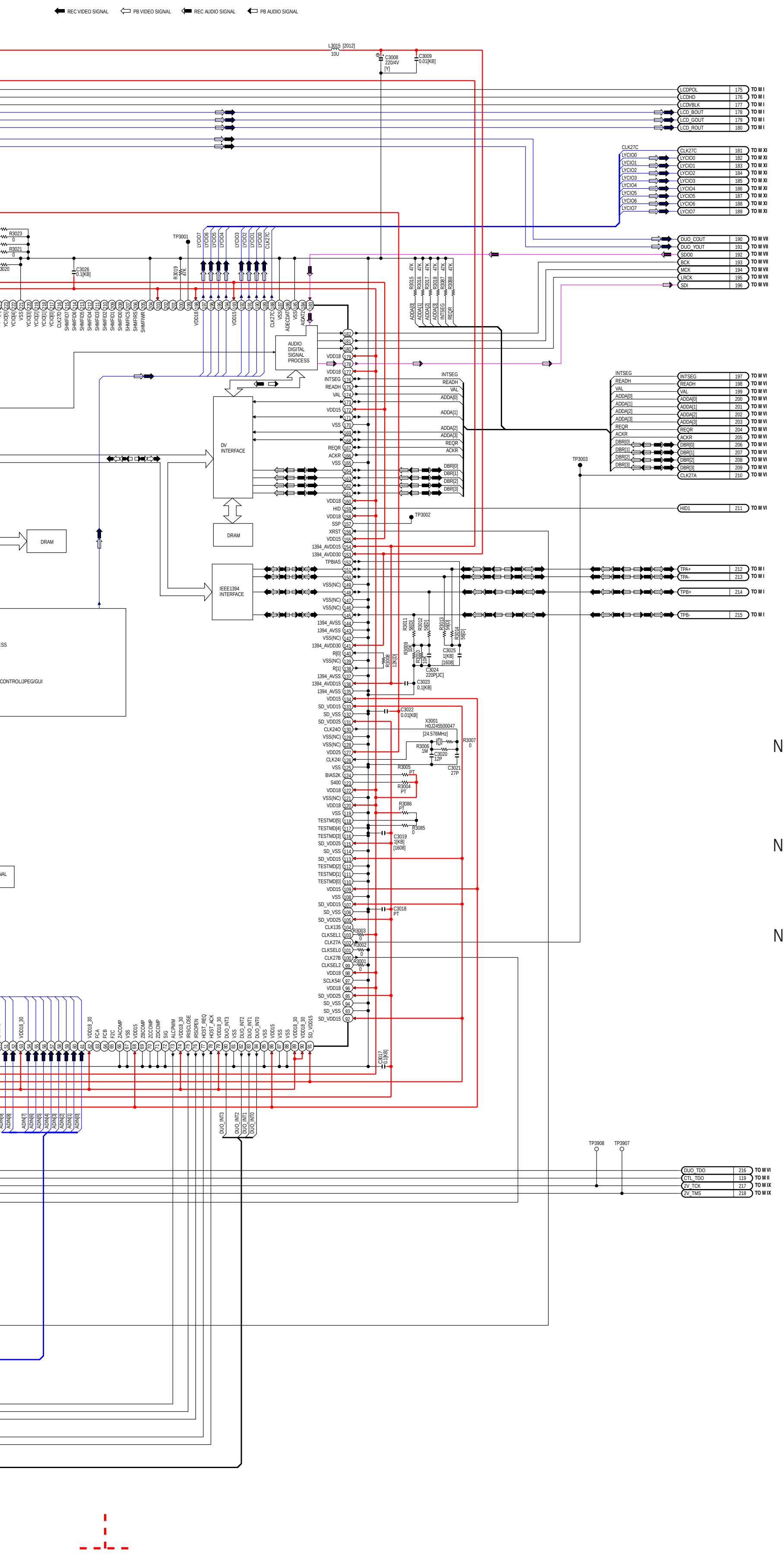

12
11
10
9
8
GND
7
6
5
4
3
2
1
SERIAL <--> PARARELL
DECODER
13
14
15
16
17 GND
18
19
20
21
22
23
24
IRIS
DRIVE
IRIS
LOGIC
D/A
CONVERTER
&
DRIVE
CONTROL
FOCUS
MOTOR
DRIVE
ZOOM
MOTOR
DRIVE
48
47
46
45
GND 44
43
42
GND 41
40
39
38
37
V-REF
DRIVE
1/N
VDD
(+3V)
RESET
25
26
27
28
29
30
31
32
33
34
35
36

LINK TO VOLTAGE CHART

LSJB8262
MAIN IV SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN V SCHEMATIC DIAGRAM


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REGD3.2V
REGD3V
REGD2.5V
REGA2.5V
REGD1.8V
REGD1.5V
IC3001
C1AB00001962
CAMERA DIGITAL SIGNAL PROCESS/SHUFFLING
LINK TO I/O CHART
DIGITAL SIGNAL PROCESS
DIS CONTROL/ZOOM CONTROL/EFECT CONTROL/JPEG/GUI
CAMERA SIGNAL PROCESS
MICROCONTROLLER INTERFACE
SD INTERFACE
USB INTERFACE
DRAM
D/A CONVERTER
Q3001
UNR9111J0B
(SWITCHING)
X3002
H0J480500019
[48MHz]
L3014
J0JBC0000027
TP3001
TP3009
TP3021
TP3030


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
L3015 [2012] 10U
C3008 220/4V [Y]
C3009 0.01[KB]
LCDPOL 175 TO M I
LCDHD 176 TO M I
LCDVBLK 177 TO M I
LCD_BOUT 178 TO M I
LCD_GOUT 179 TO M I
LCD_ROUT 180 TO M I
CLK27C 181 TO M XI
LYCIO0 182 TO M XI
LYCIO1 183 TO M XI
LYCIO2 184 TO M XI
LYCIO3 185 TO M XI
LYCIO4 186 TO M XI
LYCIO5 187 TO M XI
LYCIO6 188 TO M XI
LYCIO7 189 TO M XI
DUO_COUT 190 TO M VIII
DUO_YOUT 191 TO M VIII
SDO0 192 TO M VIII
BCK 193 TO M VIII
MCK 194 TO M VIII
LRCK 195 TO M VIII
SDI 196 TO M VIII
INTSEG 197 TO M VI
READH 198 TO M VI
VAL 199 TO M VI
ADDA[0] 200 TO M VI
ADDA[1] 201 TO M VI
ADDA[2] 202 TO M VI
ADDA[3] 203 TO M VI
REQR 204 TO M VI
ACKR 205 TO M VI
DBR[0] 206 TO M VI
DBR[1] 207 TO M VI
DBR[2] 208 TO M VI
DBR[3] 209 TO M VI
CLK27A 210 TO M VI
HID1 211 TO M VI
TPA+ 212 TO M I
TPA- 213 TO M I
TPB+ 214 TO M I
TPB- 215 TO M I
DUO_TDO 216 TO M VI
CTL_TDO 119 TO M II
2V_TCK 217 TO M IX
2V_TMS 218 TO M IX
TP3001
TP3002
TP3003
TP3907
TP3908
R3023
R3021
C3026 0.1[KB]
R3019
AUDIO DIGITAL SIGNAL PROCESS
DV INTERFACE
DRAM
IEEE1394 INTERFACE
CONTROL/JPEG/GUI
X3001 H0J245500047 [24.576MHz]
R3006 1M
R3007 0
C3020 12P
C3021 27P
R3005 PT
R3004 PT
R3086 PT
R3085 0
C3019 1[KB] [1608]
C3018 PT
C3022 0.01[KB]
C3023 0.1[KB]
C3024 220P[JC]
C3025 1[KB] [1608]
R3003
R3002
R3001
C3017

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

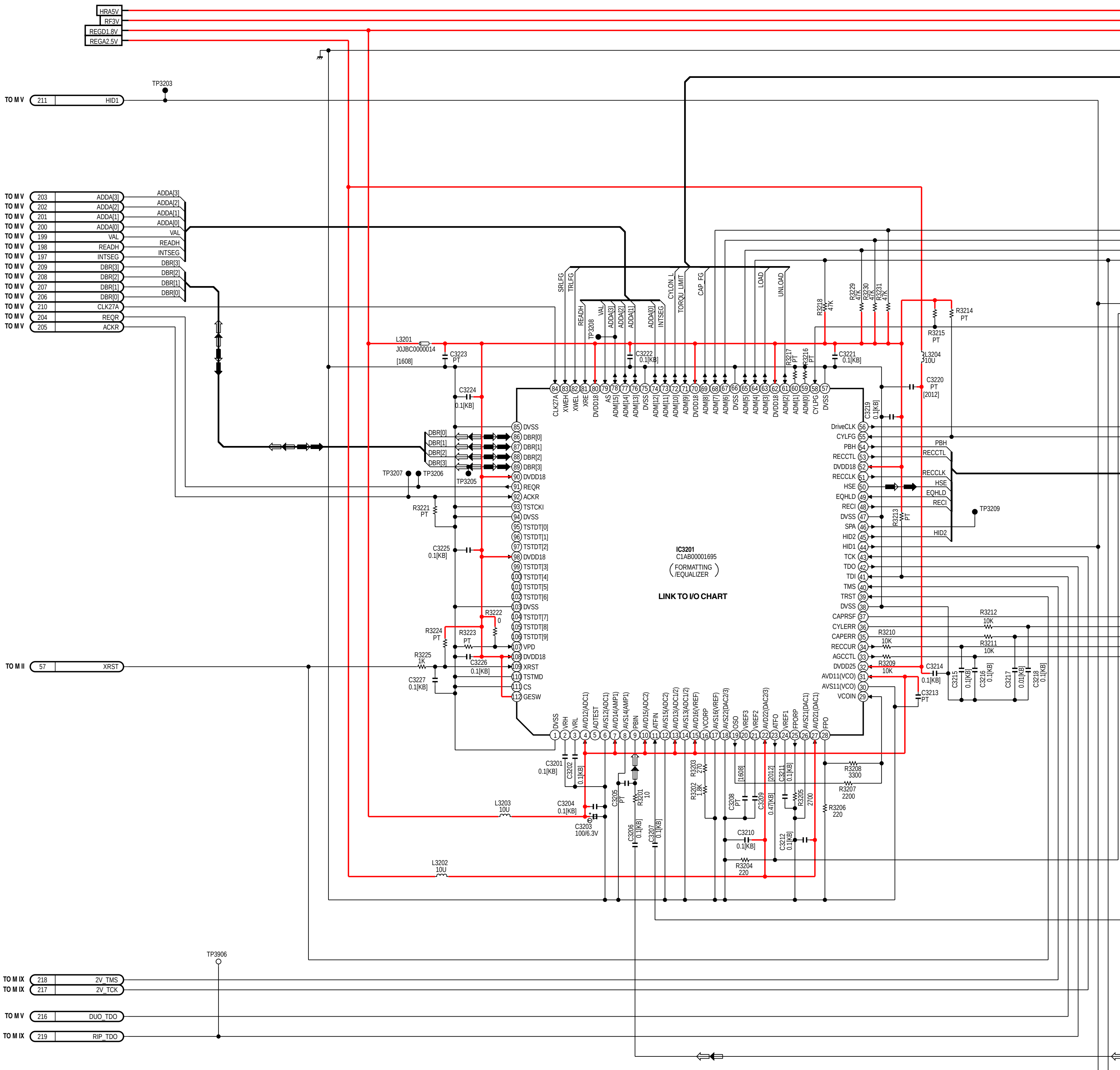
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

LINK TO VOLTAGE CHART

LSJB8262
MAIN V SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN VI SCHEMATIC DIAGRAM

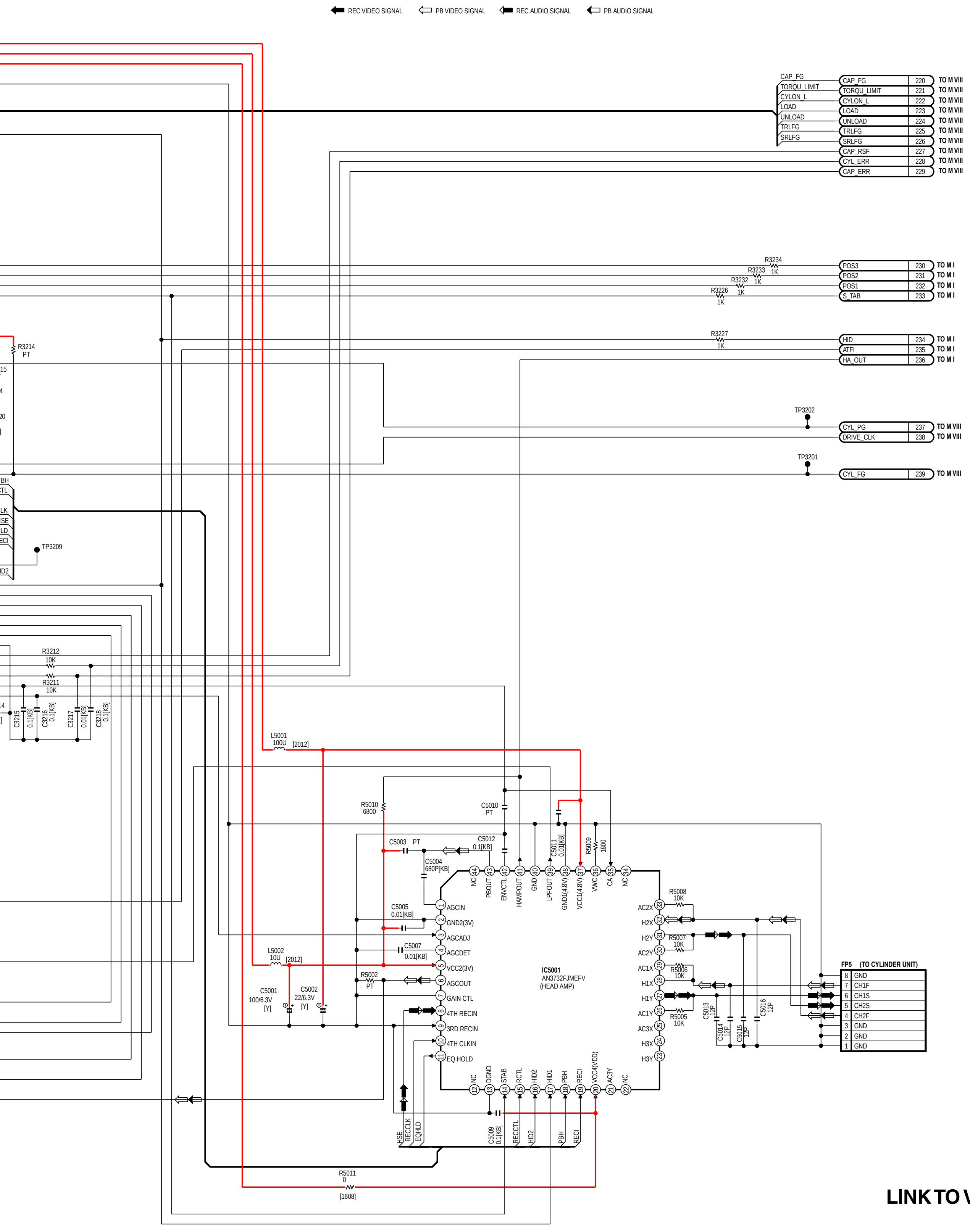
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.


HRA5V
RF3V
REGD1.8V
REGA2.5V
TP3203
TO M V 211 HID1
TO M V 203 ADDA[3]
TO M V 202 ADDA[2]
TO M V 201 ADDA[1]
TO M V 200 ADDA[0]
TO M V 199 VAL
TO M V 198 READH
TO M V 197 INTSEG
TO M V 209 DBR[3]
TO M V 208 DBR[2]
TO M V 207 DBR[1]
TO M V 206 DBR[0]
TO M V 210 CLK27A
TO M V 204 REQR
TO M V 205 ACKR
TO M II 57 XRST
TO M IX 218 2V_TMS
TO M IX 217 2V_TCK
TO M V 216 DUO_TDO
TO M IX 219 RIP_TDO
TP3906
L3201
J0JBC0000014
[1608]
C3223
PT
C3224
0.1[KB]
C3222
0.1[KB]
C3221
0.1[KB]
TP3207
TP3206
TP3205
TP3208
R3221
PT
C3225
0.1[KB]
R3222
0
R3224
PT
R3223
PT
R3225
1K
C3226
0.1[KB]
C3227
0.1[KB]
IC3201
C1AB00001695
FORMATTING
/EQUALIZER
LINK TO I/O CHART
SRLFG
TRLFG
READH
VAL
ADDA[3]
ADDA[2]
ADDA[1]
ADDA[0]
INTSEG
CYLON_L
TORQU_LIMIT
CAP_FG
LOAD
UNLOAD
R3218
47K
R3229
47K
R3230
47K
R3231
47K
R3214
PT
R3215
PT
R3217
PT
R3216
PT
L3204
10U
C3220
PT
[2012]
C3219
0.1[KB]
R3213
PT
TP3209
PBH
RECCTL
RECCLK
HSE
EQHLD
RECI
HID2
R3212
10K
R3210
10K
R3211
10K
R3209
10K
C3214
0.1[KB]
C3213
PT
C3215
0.1[KB]
C3216
0.1[KB]
C3217
0.01[KB]
C3218
0.1[KB]
84 CLK27A
83 XWEH
82 XWEL
81 XRE
80 DVDD18
79 AS
78 ADM[15]
77 ADM[14]
76 ADM[13]
75 DVSS
74 ADM[12]
73 ADM[11]
72 ADM[10]
71 ADM[9]
70 DVDD18
69 ADM[8]
68 ADM[7]
67 ADM[6]
66 DVSS
65 ADM[5]
64 ADM[4]
63 ADM[3]
62 DVDD18
61 ADM[2]
60 ADM[1]
59 ADM[0]
58 CYLPG
57 DVSS
85 DVSS
86 DBR[0]
87 DBR[1]
88 DBR[2]
89 DBR[3]
90 DVDD18
91 REQR
92 ACKR
93 TSTCKI
94 DVSS
95 TSTDT[0]
96 TSTDT[1]
97 TSTDT[2]
98 DVDD18
99 TSTDT[3]
100 TSTDT[4]
101 TSTDT[5]
102 TSTDT[6]
103 DVSS
104 TSTDT[7]
105 TSTDT[8]
106 TSTDT[9]
107 VPD
108 DVDD18
109 XRST
110 TSTMD
111 CS
112 GESW
56 DriveCLK
55 CYLFG
54 PBH
53 RECCTL
52 DVDD18
51 RECCLK
50 HSE
49 EQHLD
48 RECI
47 DVSS
46 SPA
45 HID2
44 HID1
43 TCK
42 TDO
41 TDI
40 TMS
39 TRST
38 DVSS
37 CAPRSF
36 CYLERR
35 CAPERR
34 RECCUR
33 AGCCTL
32 DVDD25
31 AVD11(VCO)
30 AVS11(VCO)
29 VCOIN
1 DVSS
2 VRH
3 VRL
4 AVD12(ADC1)
5 ADTEST
6 AVS12(ADC1)
7 AVD14(AMP1)
8 AVS14(AMP1)
9 PBIN
10 AVD15(ADC2)
11 ATFIN
12 AVS15(ADC2)
13 AVD13(ADC1/2)
14 AVS13(ADC1/2)
15 AVD16(VREF)
16 VCORP
17 AVS16(VREF)
18 AVS22(DAC2/3)
19 OSO
20 VREF2
21 AVD22(DAC2/3)
22 ATFO
23 VREF1
24 FPORP
25 AVS21(DAC1)
26 AVD21(DAC1)
27 FPO
28
DBR[0]
DBR[1]
DBR[2]
DBR[3]
C3201
0.1[KB]
C3202
0.1[KB]
C3205
PT
R3201
10
R3203
270
R3202
1.8K
C3208
PT
[1608]
C3209
0.47[KB]
[2012]
C3211
0.1[KB]
R3205
2700
R3208
3300
R3207
2200
R3206
220
L3203
10U
C3204
0.1[KB]
C3203
100/6.3V
C3206
0.1[KB]
C3207
0.1[KB]
C3210
0.1[KB]
C3212
0.1[KB]
R3204
220
L3202
10U

order of the parts,
number listed in the parts list.
ber on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.



REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
CAP_FG
TORQU_LIMIT
CYLON_L
LOAD
UNLOAD
TRLFG
SRLFG
CAP_FG 220 TO M VIII
TORQU_LIMIT 221 TO M VIII
CYLON_L 222 TO M VIII
LOAD 223 TO M VIII
UNLOAD 224 TO M VIII
TRLFG 225 TO M VIII
SRLFG 226 TO M VIII
CAP_RSF 227 TO M VIII
CYL_ERR 228 TO M VIII
CAP_ERR 229 TO M VIII
R3234 1K
R3233 1K
R3232 1K
R3226 1K
POS3 230 TO M I
POS2 231 TO M I
POS1 232 TO M I
S_TAB 233 TO M I
R3227 1K
HID 234 TO M I
ATFI 235 TO M I
HA_OUT 236 TO M I
R3214 PT
TP3202
CYL_PG 237 TO M VIII
DRIVE_CLK 238 TO M VIII
TP3201
CYL_FG 239 TO M VIII
TP3209
R3212 10K
R3211 10K
C3215 0.1[KB]
C3216 0.1[KB]
C3217 0.01[KB]
C3218 0.1[KB]
L5001 100U [2012]
R5010 6800
C5010 PT
C5003 PT
C5012 0.1[KB]
C5004 680P[KB]
C5011 0.01[KB]
R5009 1800
C5005 0.01[KB]
C5007 0.01[KB]
L5002 10U [2012]
R5002 PT
C5001 100/6.3V [Y]
C5002 22/6.3V [Y]
IC5001
AN3732FJMEFV
(HEAD AMP)
1 AGCIN
2 GND2(3V)
3 AGCADJ
4 AGCDET
5 VCC2(3V)
6 AGCOUT
7 GAIN CTL
8 4TH RECIN
9 3RD RECIN
10 4TH CLKIN
11 EQ HOLD
12 NC
13 DGND
14 STAB
15 RCTL
16 HID2
17 HID1
18 PBH
19 RECI
20 VCC4(VDD)
21 AC3Y
22 NC
23 H3Y
24 H3X
25 AC3X
26 AC1Y
27 H1Y
28 H1X
29 AC1X
30 AC2Y
31 H2Y
32 H2X
33 AC2X
34 NC
35 CA
36 VWC
37 VCC1(4.8V)
38 GND1(4.8V)
39 LPFOUT
40 GND
41 HAMPOUT
42 ENVCTL
43 PBOUT
44 NC
R5008 10K
R5007 10K
R5006 10K
R5005 10K
C5013 12P
C5014 12P
C5015 12P
C5016 12P
FP5 (TO CYLINDER UNIT)
8 GND
7 CH1F
6 CH1S
5 CH2S
4 CH2F
3 GND
2 GND
1 GND
HSE
RECCLK
EQHLD
C5009 0.1[KB]
RECCTL
HID2
PBH
RECI
R5011 0 [1608]

LINK TO VOLTAGE CHART

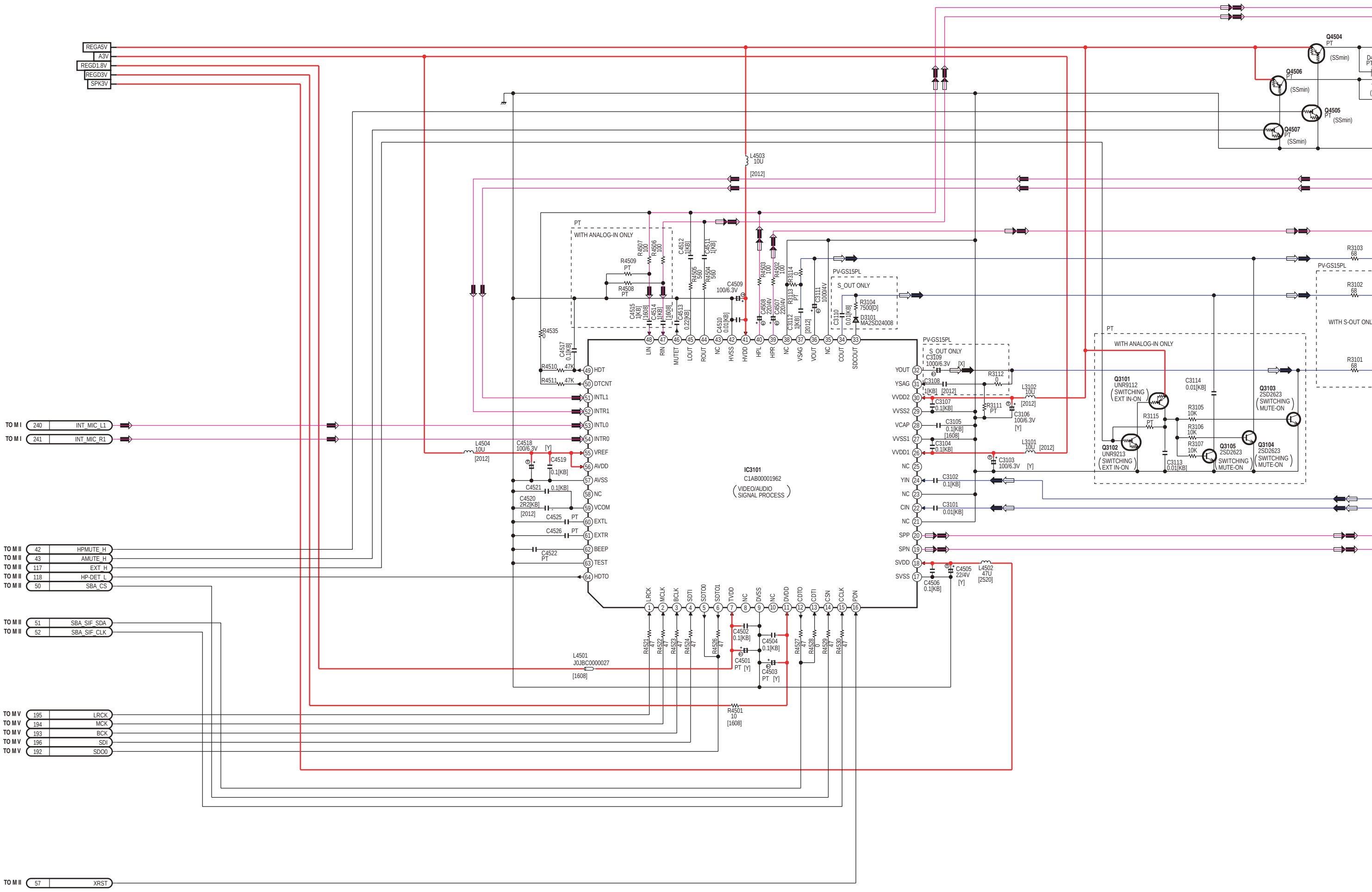
LSJB8262

MAIN VI SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN VII SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

REC VIDEO SIGNAL PB VIDEO SIGNAL REC AUDIO SIGNAL PB AUDIO SIGNAL

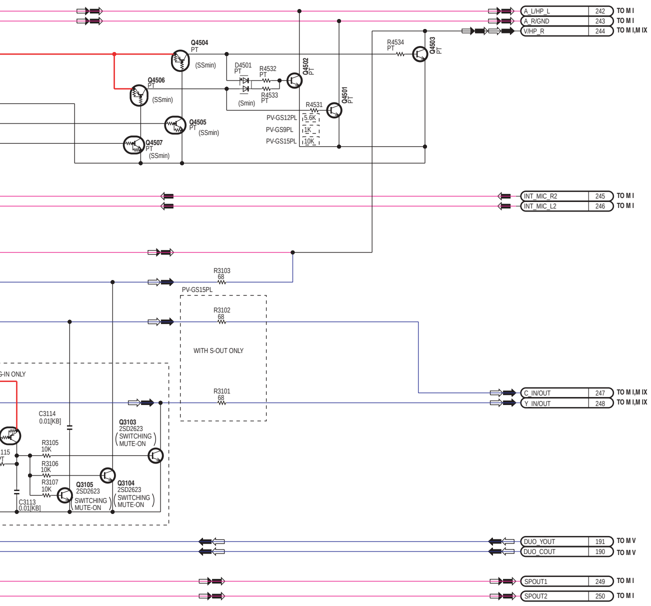


REGA5V
A3V
REGD1.8V
REGD3V
SPK3V
TO M I 240 INT_MIC_L1
TO M I 241 INT_MIC_R1
TO M II 42 HPMUTE_H
TO M II 43 AMUTE_H
TO M II 117 EXT_H
TO M II 118 HP-DET_L
TO M II 50 SBA_CS
TO M II 51 SBA_SIF_SDA
TO M II 52 SBA_SIF_CLK
TO M V 195 LRCK
TO M V 194 MCK
TO M V 193 BCK
TO M V 196 SDI
TO M V 192 SDO0
TO M II 57 XRST
IC3101
C1AB00001962
VIDEO/AUDIO SIGNAL PROCESS
WITH ANALOG-IN ONLY
S_OUT ONLY
PV-GS15PL
WITH S-OUT ONLY
Q4504 PT (SSmin)
Q4506 PT (SSmin)
Q4505 PT (SSmin)
Q4507 PT (SSmin)
Q3101 UNR9112 SWITCHING EXT IN-ON
Q3102 UNR9213 SWITCHING EXT IN-ON
Q3103 2SD2623 SWITCHING MUTE-ON
Q3104 2SD2623 SWITCHING MUTE-ON
Q3105 2SD2623 SWITCHING MUTE-ON
D3101 MA2SD24008
L4503 10U [2012]
L4504 10U [2012]
L4501 J0JBC0000027 [1608]
L4502 47U [2520]
L3101 10U [2012]
L3102 10U [2012]
R4501 10 [1608]
HDT DTCNT INTL1 INTR1 INTL0 INTR0 VREF AVDD AVSS NC VCOM EXTL EXTR BEEP TEST HDTO
LRCK MCLK BCLK SDTI SDTO0 SDTO1 TVDD NC DVSS NC DVDD CDTO CDTI CSN CCLK PDN
YOUT YSAG VVDD2 VVSS2 VCAP VVSS1 VVDD1 NC YIN NC CIN NC SPP SPN SVDD SVSS
LIN RIN MUTET LOUT ROUT NC HVSS HVDD HPL HPR NC VSAG VOUT NC COUT SDOUT

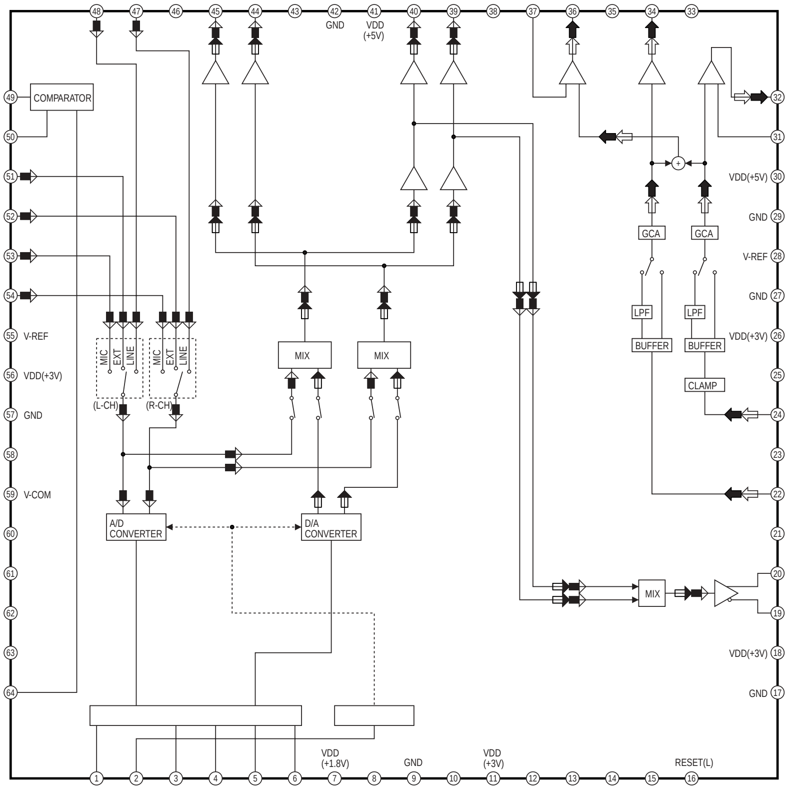
order of the parts,
number listed in the parts list.
mber on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


A_L/HP_L 242 TO M I
A_R/GND 243 TO M I
V/HP_R 244 TO M I,M IX
Q4504 PT (SSmin)
Q4506 PT (SSmin)
Q4505 PT (SSmin)
Q4507 PT (SSmin)
D4501 PT (Smin)
R4532 PT
R4533 PT
Q4502 PT
R4531
PV-GS12PL 5.6K
PV-GS9PL 1K
PV-GS15PL 10K
Q4501 PT
R4534 PT
Q4503 PT
INT_MIC_R2 245 TO M I
INT_MIC_L2 246 TO M I
R3103 68
PV-GS15PL
R3102 68
WITH S-OUT ONLY
R3101 68
C_IN/OUT 247 TO M I,M IX
Y_IN/OUT 248 TO M I,M IX
G-IN ONLY
C3114 0.01[KB]
Q3103 2SD2623 (SWITCHING MUTE-ON)
R3105 10K
R3106 10K
R3107 10K
115 PT
Q3105 2SD2623 (SWITCHING MUTE-ON)
Q3104 2SD2623 (SWITCHING MUTE-ON)
C3113 0.01[KB]
DUO_YOUT 191 TO M V
DUO_COUT 190 TO M V
SPOUT1 249 TO M I
SPOUT2 250 TO M I

IC3101 IC- DETAIL BLOCK DIAGRAM

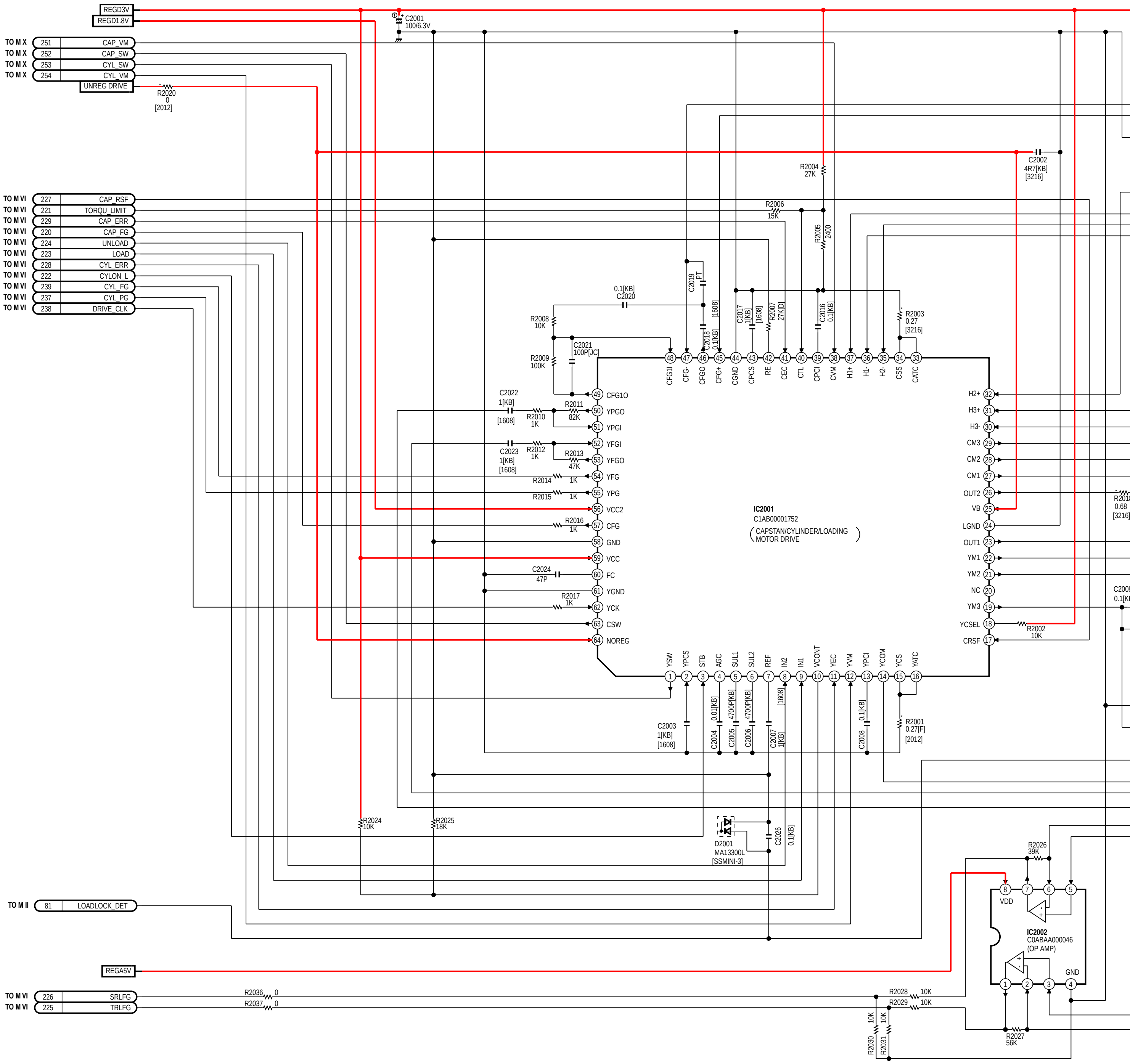

48
47
46
45
44
43
42 GND
41 VDD (+5V)
40
39
38
37
36
35
34
33
49 COMPARATOR
50
51
52
53
54
55 V-REF
56 VDD(+3V)
57 GND
58
59 V-COM
60
61
62
63
64
32
31
VDD(+5V) 30
GND 29
V-REF 28
GND 27
VDD(+3V) 26
25
24
23
22
21
20
19
VDD(+3V) 18
GND 17
GCA
GCA
LPF
LPF
BUFFER
BUFFER
CLAMP
MIC EXT LINE
MIC EXT LINE
(L-CH)
(R-CH)
MIX
MIX
MIX
A/D CONVERTER
D/A CONVERTER
1
2
3
4
5
6
7 VDD (+1.8V)
8
9 GND
10
11 VDD (+3V)
12
13
14
15
16 RESET(L)

LINK TO VOLTAGE CHART

LSJB8262
MAIN VII SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN VIII SCHEMATIC DIAGRAM

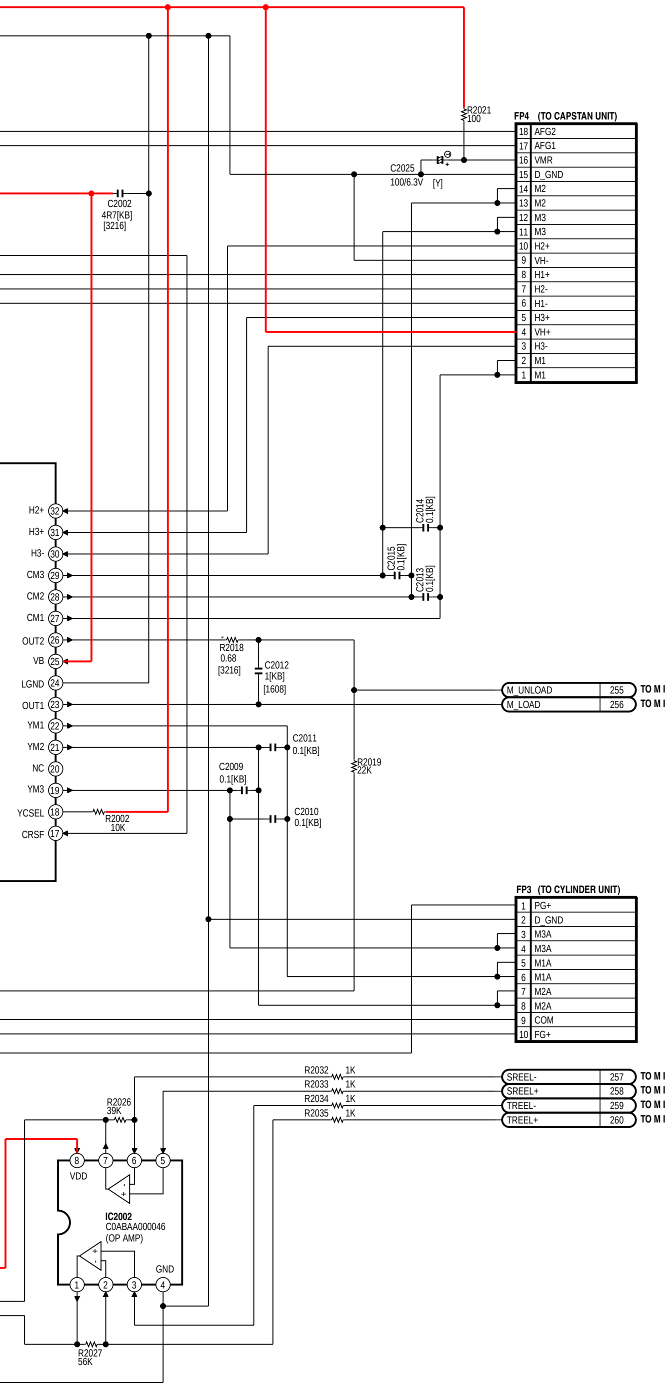
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.


REGD3V
REGD1.8V
TO M X 251 CAP_VM
TO M X 252 CAP_SW
TO M X 253 CYL_SW
TO M X 254 CYL_VM
UNREG DRIVE
R2020 0 [2012]
C2001 100/6.3V
TO M VI 227 CAP_RSF
TO M VI 221 TORQU_LIMIT
TO M VI 229 CAP_ERR
TO M VI 220 CAP_FG
TO M VI 224 UNLOAD
TO M VI 223 LOAD
TO M VI 228 CYL_ERR
TO M VI 222 CYLON_L
TO M VI 239 CYL_FG
TO M VI 237 CYL_PG
TO M VI 238 DRIVE_CLK
C2002 4R7[KB] [3216]
R2004 27K
R2006 15K
R2005 2400
C2019 PT
C2018 0.1[KB] [1608]
C2017 1[KB] [1608]
R2007 27K[D]
C2016 0.1[KB]
R2003 0.27 [3216]
0.1[KB] C2020
R2008 10K
R2009 100K
C2021 100P[JC]
C2022 1[KB] [1608]
R2010 1K
R2011 82K
C2023 1[KB] [1608]
R2012 1K
R2013 47K
R2014 1K
R2015 1K
R2016 1K
C2024 47P
R2017 1K
CFG1I CFG- CFGO CFG+ CGND CPCS RE CEC CTL CPCI CVM H1+ H1- H2- CSS CATC
CFG1O YPGO YPGI YFGI YFGO YFG YPG VCC2 CFG GND VCC FC YGND YCK CSW NOREG
H2+ H3+ H3- CM3 CM2 CM1 OUT2 VB LGND OUT1 YM1 YM2 NC YM3 YCSEL CRSF
YSW YPCS STB AGC SUL1 SUL2 REF IN2 IN1 VCONT YEC YVM YPCI YCOM YCS YATC
IC2001
C1AB00001752
(CAPSTAN/CYLINDER/LOADING MOTOR DRIVE)
R2018 0.68 [3216]
C2009 0.1[K
R2002 10K
C2003 1[KB] [1608]
C2004 0.01[KB]
C2005 4700P[KB]
C2006 4700P[KB]
C2007 1[KB] [1608]
C2008 0.1[KB]
R2001 0.27[F] [2012]
R2024 10K
R2025 18K
D2001 MA13300L [SSMINI-3]
C2026 0.1[KB]
R2026 39K
TO M II 81 LOADLOCK_DET
VDD
IC2002
C0ABAA000046
(OP AMP)
GND
REGA5V
TO M VI 226 SRLFG
TO M VI 225 TRLFG
R2036 0
R2037 0
R2028 10K
R2029 10K
R2030 10K
R2031 10K
R2027 56K

order of the parts,
number listed in the parts list.
nber on this diagram.

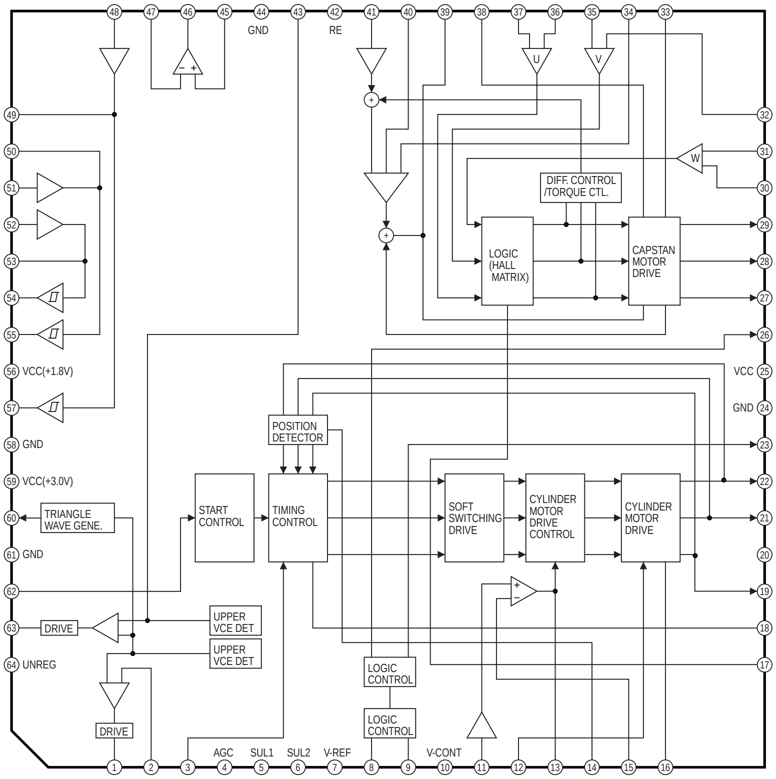
NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.



R2021
100
FP4 (TO CAPSTAN UNIT)
18 AFG2
17 AFG1
16 VMR
15 D_GND
14 M2
13 M2
12 M3
11 M3
10 H2+
9 VH-
8 H1+
7 H2-
6 H1-
5 H3+
4 VH+
3 H3-
2 M1
1 M1
C2025
100/6.3V [Y]
C2002
4R7[KB]
[3216]
H2+ 32
H3+ 31
H3- 30
CM3 29
CM2 28
CM1 27
OUT2 26
VB 25
LGND 24
OUT1 23
YM1 22
YM2 21
NC 20
YM3 19
YCSEL 18
CRSF 17
C2014
0.1[KB]
C2015
0.1[KB]
C2013
0.1[KB]
R2018
0.68
[3216]
C2012
1[KB]
[1608]
M_UNLOAD 255 TO M I
M_LOAD 256 TO M I
C2011
0.1[KB]
C2009
0.1[KB]
R2019
22K
C2010
0.1[KB]
R2002
10K
FP3 (TO CYLINDER UNIT)
1 PG+
2 D_GND
3 M3A
4 M3A
5 M1A
6 M1A
7 M2A
8 M2A
9 COM
10 FG+
R2032 1K
R2033 1K
R2034 1K
R2035 1K
SREEL- 257 TO M I
SREEL+ 258 TO M I
TREEL- 259 TO M I
TREEL+ 260 TO M I
R2026
39K
VDD
IC2002
C0ABAA000046
(OP AMP)
GND
R2027
56K

IC2001 IC- DETAIL BLOCK DIAGRAM



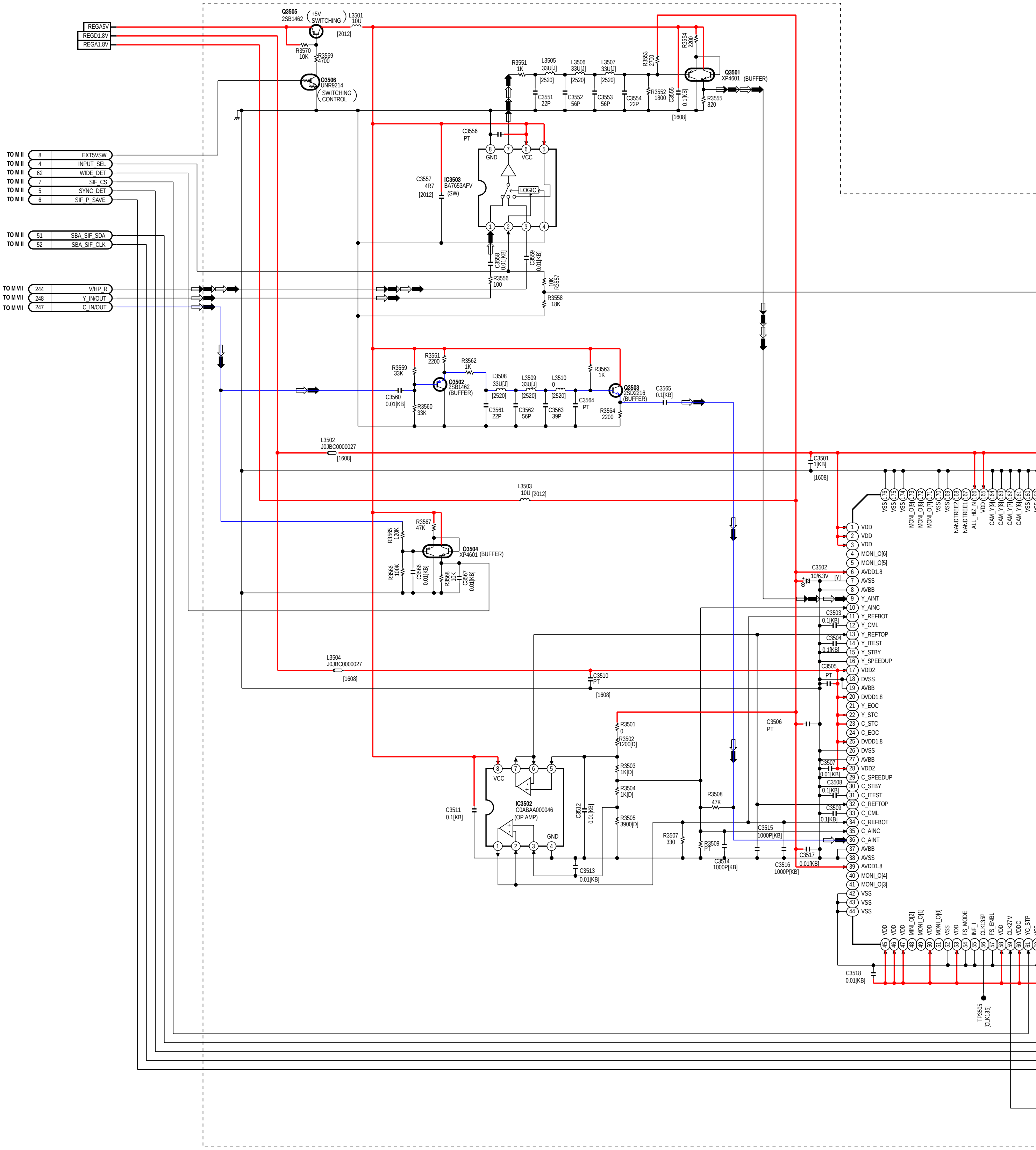
GND
RE
U
V
W
DIFF. CONTROL
/TORQUE CTL.
LOGIC
(HALL
MATRIX)
CAPSTAN
MOTOR
DRIVE
VCC(+1.8V)
GND
VCC(+3.0V)
GND
UNREG
VCC
GND
POSITION
DETECTOR
TRIANGLE
WAVE GENE.
START
CONTROL
TIMING
CONTROL
SOFT
SWITCHING
DRIVE
CYLINDER
MOTOR
DRIVE
CONTROL
CYLINDER
MOTOR
DRIVE
DRIVE
UPPER
VCE DET
UPPER
VCE DET
DRIVE
LOGIC
CONTROL
LOGIC
CONTROL
AGC
SUL1
SUL2
V-REF
V-CONT

LINK TO VOLTAGE CHART

LSJB8262
MAIN VIII SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN IX SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.



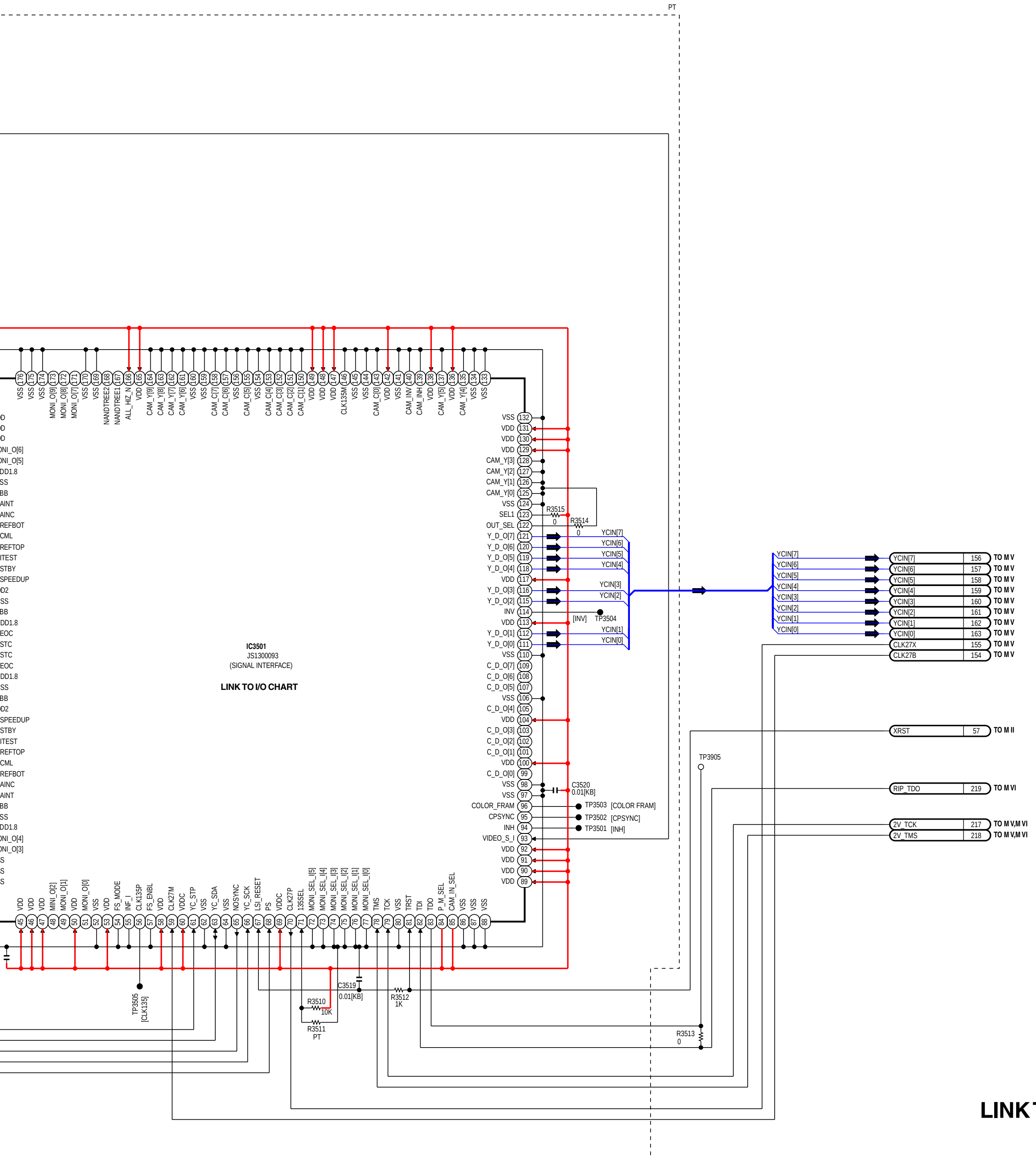
REGA5V
REGD1.8V
REGA1.8V
Q3505
2SB1462
+5V SWITCHING
L3501
10U
[2012]
R3570
10K
R3569
4700
Q3506
UNR9214
SWITCHING CONTROL
R3551
1K
L3505
33U[J]
[2520]
L3506
33U[J]
[2520]
L3507
33U[J]
[2520]
R3553
2700
R3554
2200
Q3501
XP4601 (BUFFER)
C3551
22P
C3552
56P
C3553
56P
C3554
22P
R3552
1800
C3555
0.1[KB]
R3555
820
[1608]
C3556
PT
C3557
4R7
[2012]
IC3503
BA7653AFV
(SW)
GND
VCC
LOGIC
C3558
0.01[KB]
C3559
0.01[KB]
R3556
100
R3557
10K
R3558
18K
TO M II 8 EXT5VSW
TO M II 4 INPUT_SEL
TO M II 62 WIDE_DET
TO M II 7 SIF_CS
TO M II 5 SYNC_DET
TO M II 6 SIF_P_SAVE
TO M II 51 SBA_SIF_SDA
TO M II 52 SBA_SIF_CLK
TO M VII 244 V/HP_R
TO M VII 248 Y_IN/OUT
TO M VII 247 C_IN/OUT
R3559
33K
R3561
2200
R3562
1K
Q3502
2SB1462
(BUFFER)
L3508
33U[J]
[2520]
L3509
33U[J]
[2520]
L3510
0
[2520]
R3563
1K
Q3503
2SD2216
(BUFFER)
C3565
0.1[KB]
C3560
0.01[KB]
R3560
33K
C3561
22P
C3562
56P
C3563
39P
C3564
PT
R3564
2200
L3502
J0JBC0000027
[1608]
C3501
1[KB]
[1608]
L3503
10U [2012]
R3567
47K
R3565
120K
Q3504
XP4601 (BUFFER)
R3566
100K
C3566
0.01[KB]
R3568
10K
C3567
0.01[KB]
L3504
J0JBC0000027
[1608]
C3510
PT
[1608]
R3501
0
R3502
1200[D]
R3503
1K[D]
R3504
1K[D]
R3505
3900[D]
IC3502
C0ABAA000046
(OP AMP)
VCC
GND
C3511
0.1[KB]
C3512
0.01[KB]
C3513
0.01[KB]
R3507
330
R3508
47K
R3509
PT
C3514
1000P[KB]
C3515
1000P[KB]
C3516
1000P[KB]
C3517
0.01[KB]
C3502
10/6.3V [Y]
C3503
0.1[KB]
C3504
0.1[KB]
C3505
PT
C3506
PT
C3507
0.01[KB]
C3508
0.1[KB]
C3509
0.1[KB]
C3518
0.01[KB]
TP3505
[CLK135]
1 VDD
2 VDD
3 VDD
4 MONI_O[6]
5 MONI_O[5]
6 AVDD1.8
7 AVSS
8 AVBB
9 Y_AINT
10 Y_AINC
11 Y_REFBOT
12 Y_CML
13 Y_REFTOP
14 Y_ITEST
15 Y_STBY
16 Y_SPEEDUP
17 VDD2
18 DVSS
19 AVBB
20 DVDD1.8
21 Y_EOC
22 Y_STC
23 C_STC
24 C_EOC
25 DVDD1.8
26 DVSS
27 AVBB
28 VDD2
29 C_SPEEDUP
30 C_STBY
31 C_ITEST
32 C_REFTOP
33 C_CML
34 C_REFBOT
35 C_AINC
36 C_AINT
37 AVBB
38 AVSS
39 AVDD1.8
40 MONI_O[4]
41 MONI_O[3]
42 VSS
43 VSS
44 VSS
176 VSS
175 VSS
174 VSS
173 MONI_O[9]
172 MONI_O[8]
171 MONI_O[7]
170 VDD
169 VSS
168 NANDTREE2
167 NANDTREE1
166 ALL_HIZ_N
165 VDD
164 CAM_Y[9]
163 CAM_Y[8]
162 CAM_Y[7]
161 CAM_Y[6]
160 VSS
45 VDD
46 VDD
47 VDD
48 MINI_O[2]
49 MONI_O[1]
50 VDD
51 MONI_O[0]
52 VSS
53 VDD
54 FS_MODE
55 INF_I
56 CLK135P
57 FS_ENBL
58 VDD
59 CLK27M
60 VDDC
61 YC_STP

order of the parts,
number listed in the parts list.
nber on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

⬅ REC VIDEO SIGNAL ⇦ PB VIDEO SIGNAL ⬅ REC AUDIO SIGNAL ⇦ PB AUDIO SIGNAL

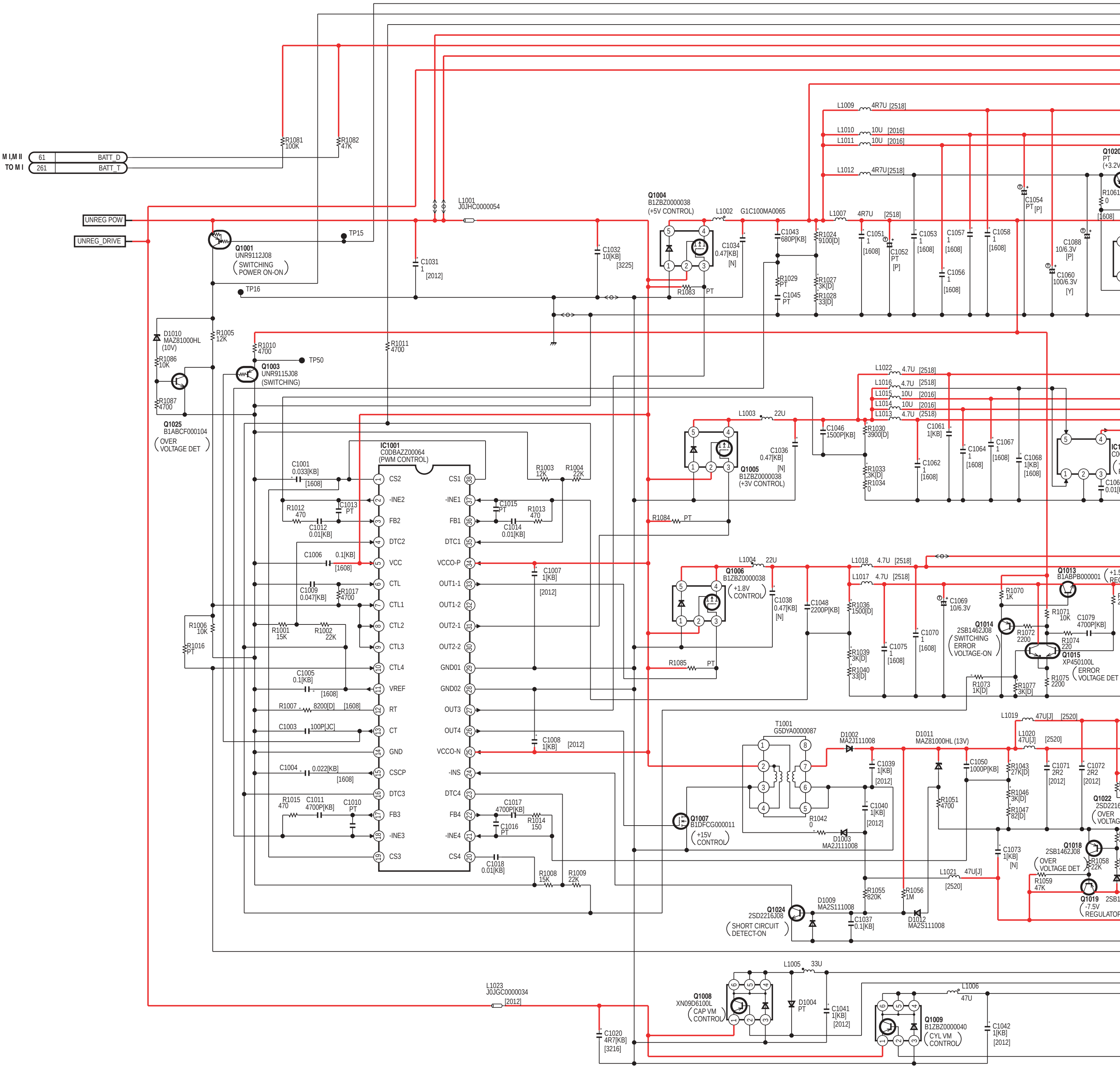

PT
IC3501
JS1300093
(SIGNAL INTERFACE)
LINK TO I/O CHART
VSS 132
VDD 131
VDD 130
VDD 129
CAM_Y[3] 128
CAM_Y[2] 127
CAM_Y[1] 126
CAM_Y[0] 125
VSS 124
SEL1 123
OUT_SEL 122
Y_D_O[7] 121
Y_D_O[6] 120
Y_D_O[5] 119
Y_D_O[4] 118
VDD 117
Y_D_O[3] 116
Y_D_O[2] 115
INV 114
VDD 113
Y_D_O[1] 112
Y_D_O[0] 111
VSS 110
C_D_O[7] 109
C_D_O[6] 108
C_D_O[5] 107
VSS 106
C_D_O[4] 105
VDD 104
C_D_O[3] 103
C_D_O[2] 102
C_D_O[1] 101
VDD 100
C_D_O[0] 99
VSS 98
VSS 97
COLOR_FRAM 96
CPSYNC 95
INH 94
VIDEO_S_I 93
VDD 92
VDD 91
VDD 90
VDD 89
R3515 0
R3514 0
[INV] TP3504
C3520 0.01[KB]
TP3503 [COLOR FRAM]
TP3502 [CPSYNC]
TP3501 [INH]
YCIN[7]
YCIN[6]
YCIN[5]
YCIN[4]
YCIN[3]
YCIN[2]
YCIN[1]
YCIN[0]
YCIN[7] 156 TO M V
YCIN[6] 157 TO M V
YCIN[5] 158 TO M V
YCIN[4] 159 TO M V
YCIN[3] 160 TO M V
YCIN[2] 161 TO M V
YCIN[1] 162 TO M V
YCIN[0] 163 TO M V
CLK27X 155 TO M V
CLK27B 154 TO M V
XRST 57 TO M II
TP3905
RIP_TDO 219 TO M VI
2V_TCK 217 TO M V,M VI
2V_TMS 218 TO M V,M VI
TP3505 [CLK135]
C3519 0.01[KB]
R3510 10K
R3511 PT
R3512 1K
R3513 0

LINK TO VOLTAGE CHART

LSJB8262
MAIN IX SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN X SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

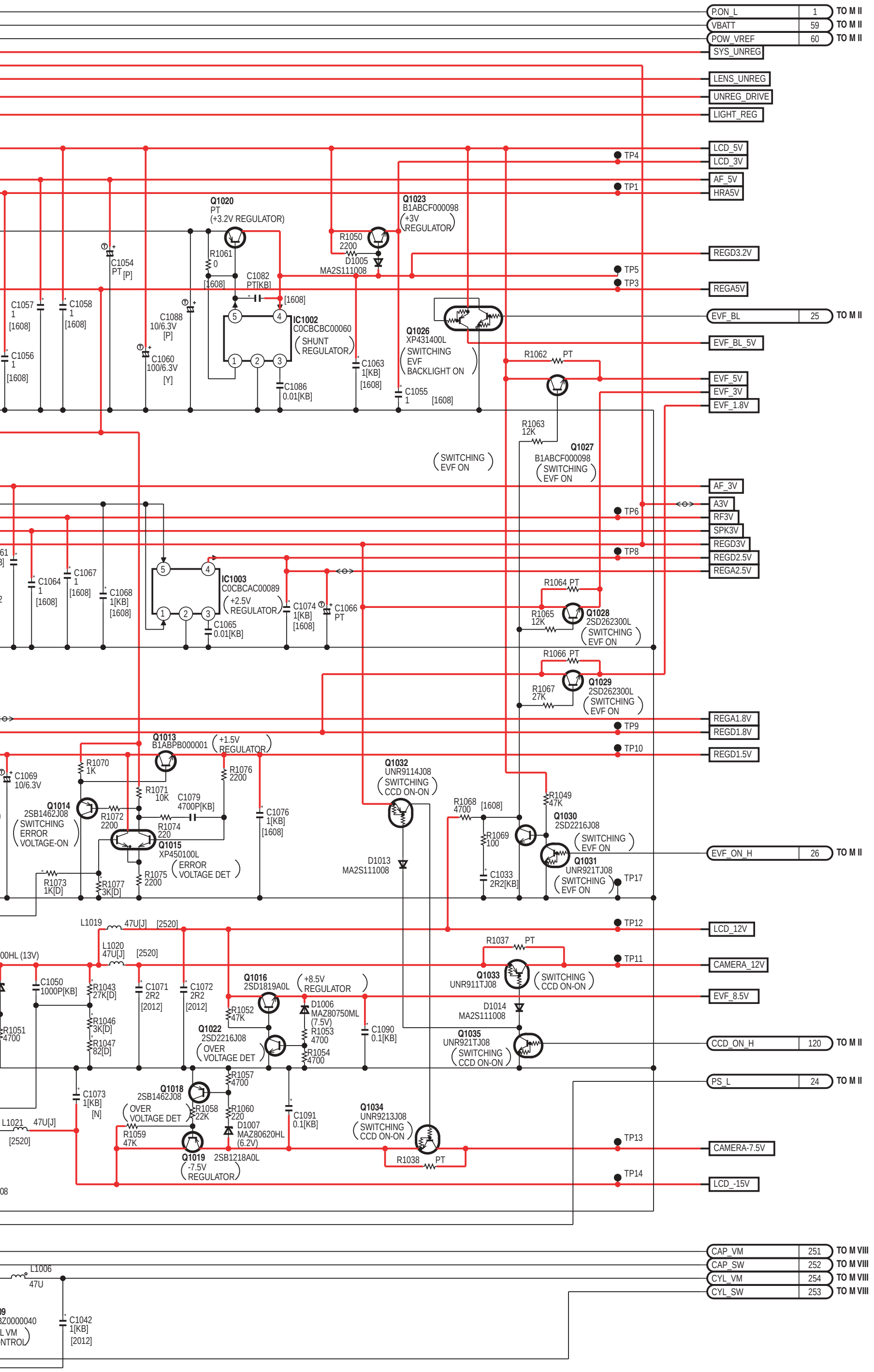


M I,M II
TO M I
61 BATT_D
261 BATT_T
UNREG POW
UNREG_DRIVE
R1081 100K
R1082 47K
L1001 J0JHC0000054
TP15
TP16
TP50
Q1001 UNR9112J08 (SWITCHING POWER ON-ON)
C1031 1 [2012]
C1032 10[KB] [3225]
Q1004 B1ZBZ0000038 (+5V CONTROL)
L1002 G1C100MA0065
C1034 0.47[KB] [N]
R1083 PT
C1043 680P[KB]
R1024 9100[D]
R1029 PT
C1045 PT
R1027 3K[D]
R1028 33[D]
L1007 4R7U [2518]
L1009 4R7U [2518]
L1010 10U [2016]
L1011 10U [2016]
L1012 4R7U [2518]
C1051 1 [1608]
C1052 PT [P]
C1053 1 [1608]
C1057 1 [1608]
C1056 1 [1608]
C1058 1 [1608]
C1054 PT [P]
C1088 10/6.3V [P]
C1060 100/6.3V [Y]
Q1020 PT (+3.2V
R1061 0 [1608]
D1010 MAZ81000HL (10V)
R1005 12K
R1086 10K
R1087 4700
Q1025 B1ABCF000104 (OVER VOLTAGE DET)
R1010 4700
Q1003 UNR9115J08 (SWITCHING)
R1011 4700
L1003 22U
C1036 0.47[KB] [N]
Q1005 B1ZBZ0000038 (+3V CONTROL)
C1046 1500P[KB]
R1030 3900[D]
R1033 3K[D]
R1034 0
L1022 4.7U [2518]
L1016 4.7U [2518]
L1015 10U [2016]
L1014 10U [2016]
L1013 4.7U [2518]
C1061 1[KB]
C1062 1 [1608]
C1064 1 [1608]
C1067 1 [1608]
C1068 1[KB] [1608]
IC1001 C0DBAZZ00064 (PWM CONTROL)
C1001 0.033[KB] [1608]
R1012 470
C1013 PT
C1012 0.01[KB]
C1006 0.1[KB] [1608]
C1009 0.047[KB]
R1017 4700
R1006 10K
R1016 PT
R1001 15K
R1002 22K
C1005 0.1[KB] [1608]
R1007 8200[D] [1608]
C1003 100P[JC]
C1004 0.022[KB] [1608]
R1015 470
C1011 4700P[KB]
C1010 PT
1 CS2
2 -INE2
3 FB2
4 DTC2
5 VCC
6 CTL
7 CTL1
8 CTL2
9 CTL3
10 CTL4
11 VREF
12 RT
13 CT
14 GND
15 CSCP
16 DTC3
17 FB3
18 -INE3
19 CS3
38 CS1
37 -INE1
36 FB1
35 DTC1
34 VCCO-P
33 OUT1-1
32 OUT1-2
31 OUT2-1
30 OUT2-2
29 GND01
28 GND02
27 OUT3
26 OUT4
25 VCCO-N
24 -INS
23 DTC4
22 FB4
21 -INE4
20 CS4
R1003 12K
R1004 22K
C1015 PT
R1013 470
C1014 0.01[KB]
C1007 1[KB] [2012]
C1008 1[KB] [2012]
C1017 4700P[KB]
R1014 150
C1016 PT
C1018 0.01[KB]
R1008 15K
R1009 22K
R1084 PT
R1085 PT
L1004 22U
Q1006 B1ZBZ0000038 (+1.8V CONTROL)
C1038 0.47[KB] [N]
C1048 2200P[KB]
L1018 4.7U [2518]
L1017 4.7U [2518]
R1036 1500[D]
R1039 3K[D]
R1040 33[D]
C1075 1 [1608]
C1070 1 [1608]
C1069 10/6.3V
Q1014 2SB1462J08 (SWITCHING ERROR VOLTAGE-ON)
R1070 1K
R1071 10K
C1079 4700P[KB]
R1072 2200
R1074 220
Q1013 B1ABPB000001
Q1015 XP450100L (ERROR VOLTAGE DET)
R1075 2200
R1073 1K[D]
R1077 3K[D]
T1001 G5DYA0000087
D1002 MA2J111008
C1039 1[KB] [2012]
C1040 1[KB] [2012]
R1042 0
D1003 MA2J111008
Q1007 B1DFCG000011 (+15V CONTROL)
D1011 MAZ81000HL (13V)
C1050 1000P[KB]
R1051 4700
L1019 47U[J] [2520]
L1020 47U[J] [2520]
R1043 27K[D]
R1046 3K[D]
R1047 82[D]
C1071 2R2 [2012]
C1072 2R2 [2012]
Q1022 2SD2216 (OVER VOLTAG
C1073 1[KB] [N]
Q1018 2SB1462J08 (OVER VOLTAGE DET)
R1058 22K
R1059 47K
Q1019 2SB1 (-7.5V REGULATOR
L1021 47U[J] [2520]
R1055 820K
R1056 1M
D1009 MA2S111008
C1037 0.1[KB]
D1012 MA2S111008
Q1024 2SD2216J08 (SHORT CIRCUIT DETECT-ON)
L1023 J0JGC0000034 [2012]
C1020 4R7[KB] [3216]
L1005 33U
Q1008 XN09D6100L (CAP VM CONTROL)
D1004 PT
C1041 1[KB] [2012]
L1006 47U
Q1009 B1ZBZ0000040 (CYL VM CONTROL)
C1042 1[KB] [2012]

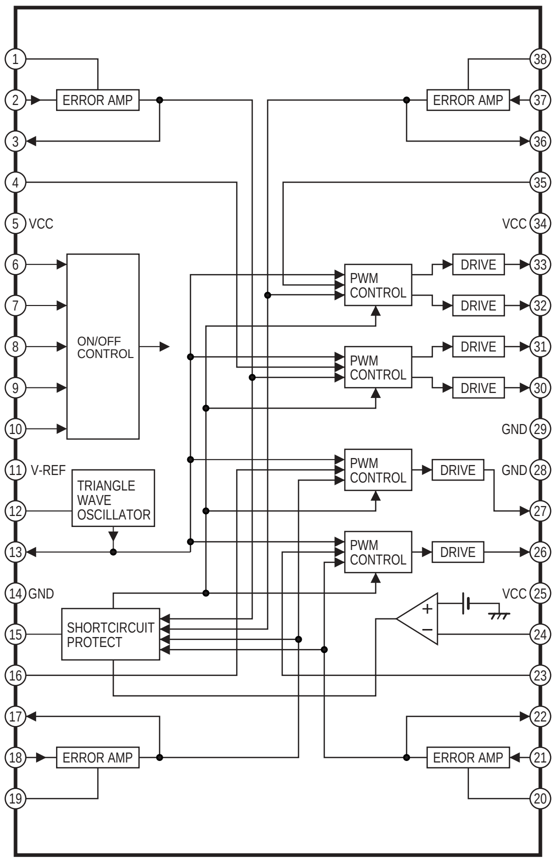
order of the parts,
number listed in the parts list.
nber on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.


P.ON_L 1 TO M II
VBATT 59 TO M II
POW_VREF 60 TO M II
SYS_UNREG
LENS_UNREG
UNREG_DRIVE
LIGHT_REG
TP4
LCD_5V
LCD_3V
TP1
AF_5V
HRA5V
Q1020 PT (+3.2V REGULATOR)
Q1023 B1ABCF000098 (+3V REGULATOR)
R1050 2200
D1005 MA2S111008
R1061 0
C1054 PT [P]
C1082 PT[KB]
REGD3.2V
TP5
TP3
REGA5V
C1057 1 [1608]
C1058 1 [1608]
C1088 10/6.3V [P]
IC1002 C0CBCBC00060 (SHUNT REGULATOR)
Q1026 XP431400L SWITCHING EVF BACKLIGHT ON
EVF_BL 25 TO M II
EVF_BL_5V
C1056 1 [1608]
C1060 100/6.3V [Y]
C1086 0.01[KB]
C1063 1[KB] [1608]
C1055 1 [1608]
R1062 PT
EVF_5V
EVF_3V
EVF_1.8V
R1063 12K
Q1027 B1ABCF000098 (SWITCHING EVF ON)
(SWITCHING EVF ON)
AF_3V
TP6
A3V
RF3V
SPK3V
REGD3V
TP8
REGD2.5V
REGA2.5V
C1064 1 [1608]
C1067 1 [1608]
C1068 1[KB] [1608]
IC1003 C0CBCAC00089 (+2.5V REGULATOR)
C1065 0.01[KB]
C1074 1[KB] [1608]
C1066 PT
R1064 PT
R1065 12K
Q1028 2SD262300L (SWITCHING EVF ON)
R1066 PT
R1067 27K
Q1029 2SD262300L (SWITCHING EVF ON)
REGA1.8V
REGD1.8V
TP9
TP10
REGD1.5V
Q1013 B1ABPB000001 (+1.5V REGULATOR)
R1070 1K
R1076 2200
C1069 10/6.3V
Q1014 2SB1462J08 (SWITCHING ERROR VOLTAGE-ON)
R1071 10K
C1079 4700P[KB]
R1072 2200
R1074 220
Q1015 XP450100L (ERROR VOLTAGE DET)
R1075 2200
C1076 1[KB] [1608]
R1073 1K[D]
R1077 3K[D]
Q1032 UNR9114J08 (SWITCHING CCD ON-ON)
D1013 MA2S111008
R1068 4700 [1608]
R1049 47K
Q1030 2SD2216J08 (SWITCHING EVF ON)
R1069 100
Q1031 UNR921TJ08 (SWITCHING EVF ON)
C1033 2R2[KB]
EVF_ON_H 26 TO M II
TP17
L1019 47U[J] [2520]
TP12
LCD_12V
L1020 47U[J] [2520]
R1037 PT
Q1033 UNR911TJ08 (SWITCHING CCD ON-ON)
TP11
CAMERA_12V
C1050 1000P[KB]
R1043 27K[D]
C1071 2R2 [2012]
C1072 2R2 [2012]
Q1016 2SD1819A0L (+8.5V REGULATOR)
D1006 MAZ80750ML (7.5V)
R1053 4700
EVF_8.5V
D1014 MA2S111008
R1051 4700
R1046 3K[D]
R1047 82[D]
Q1022 2SD2216J08 (OVER VOLTAGE DET)
R1052 47K
R1054 4700
C1090 0.1[KB]
Q1035 UNR921TJ08 (SWITCHING CCD ON-ON)
CCD_ON_H 120 TO M II
PS_L 24 TO M II
C1073 1[KB] [N]
Q1018 2SB1462J08 (OVER VOLTAGE DET)
R1057 4700
R1058 22K
R1060 220
D1007 MAZ80620HL (6.2V)
C1091 0.1[KB]
Q1034 UNR9213J08 (SWITCHING CCD ON-ON)
L1021 47U[J] [2520]
R1059 47K
Q1019 2SB1218A0L (-7.5V REGULATOR)
R1038 PT
TP13
CAMERA-7.5V
TP14
LCD_-15V
CAP_VM 251 TO M VIII
CAP_SW 252 TO M VIII
CYL_VM 254 TO M VIII
CYL_SW 253 TO M VIII
L1006 47U
C1042 1[KB] [2012]

IC1001 IC- DETAIL BLOCK DIAGRAM

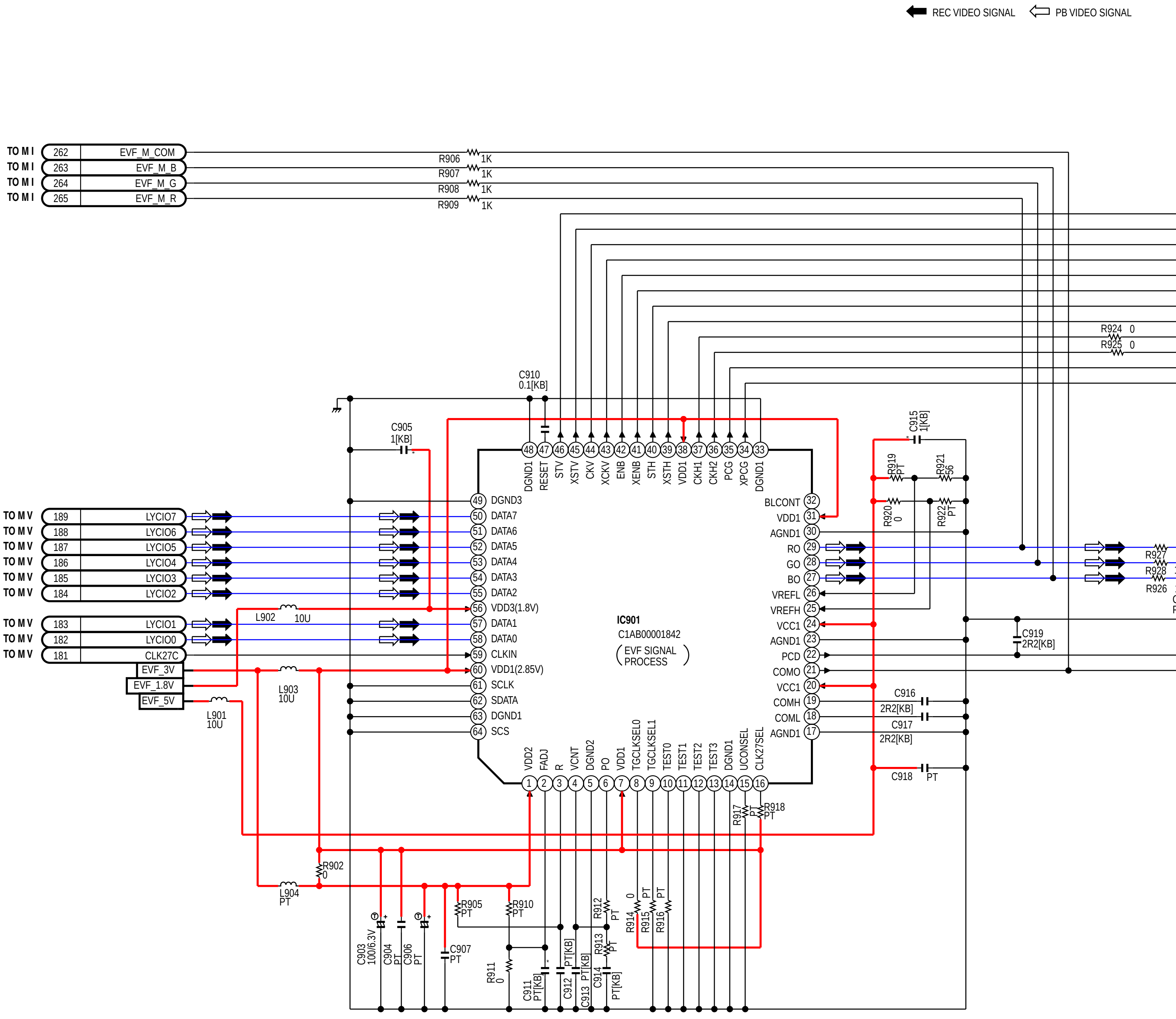

1
2
ERROR AMP
3
4
5 VCC
6
7
8
ON/OFF CONTROL
9
10
11 V-REF
TRIANGLE WAVE OSCILLATOR
12
13
14 GND
15
SHORTCIRCUIT PROTECT
16
17
18
ERROR AMP
19
38
ERROR AMP
37
36
35
VCC 34
PWM CONTROL
DRIVE
33
DRIVE
32
PWM CONTROL
DRIVE
31
DRIVE
30
GND 29
PWM CONTROL
DRIVE
GND 28
27
PWM CONTROL
DRIVE
26
VCC 25
+
−
24
23
22
ERROR AMP
21
20

LINK TO VOLTAGE CHART

LSJB8262
MAIN X SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN XI SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

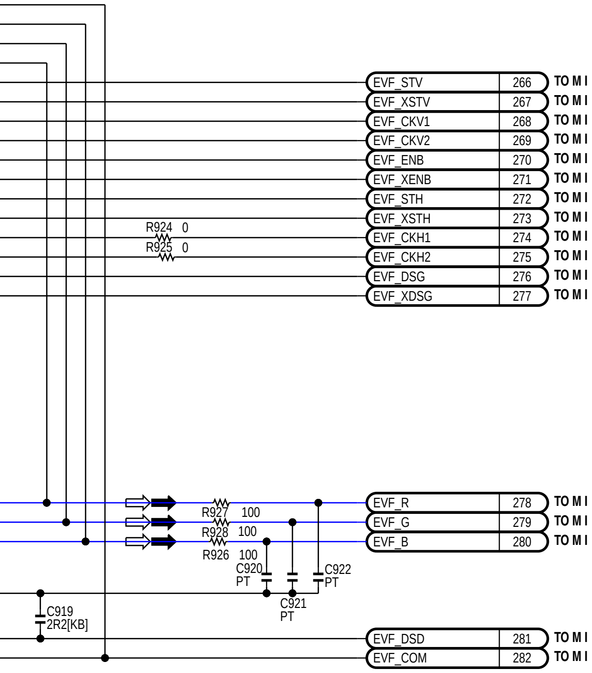

REC VIDEO SIGNAL
PB VIDEO SIGNAL
TO M I 262 EVF_M_COM
TO M I 263 EVF_M_B
TO M I 264 EVF_M_G
TO M I 265 EVF_M_R
R906 1K
R907 1K
R908 1K
R909 1K
TO M V 189 LYCIO7
TO M V 188 LYCIO6
TO M V 187 LYCIO5
TO M V 186 LYCIO4
TO M V 185 LYCIO3
TO M V 184 LYCIO2
TO M V 183 LYCIO1
TO M V 182 LYCIO0
TO M V 181 CLK27C
EVF_3V
EVF_1.8V
EVF_5V
L901 10U
L902 10U
L903 10U
L904 PT
R902 0
C905 1[KB]
C910 0.1[KB]
C903 100/6.3V
C904 PT
C906 PT
C907 PT
R905 PT
R910 PT
R911 0
C911 PT[KB]
C912 PT[KB]
C913 PT[KB]
C914 PT[KB]
R912 PT
R913 PT
R914 0
R915 PT
R916 PT
R917 PT
R918 PT
IC901
C1AB00001842
EVF SIGNAL PROCESS
1 VDD2
2 FADJ
3 R
4 VCNT
5 DGND2
6 PO
7 VDD1
8 TGCLKSEL0
9 TGCLKSEL1
10 TEST0
11 TEST1
12 TEST2
13 TEST3
14 DGND1
15 UCONSEL
16 CLK27SEL
17 AGND1
18 COML
19 COMH
20 VCC1
21 COMO
22 PCD
23 AGND1
24 VCC1
25 VREFH
26 VREFL
27 BO
28 GO
29 RO
30 AGND1
31 VDD1
32 BLCONT
33 DGND1
34 XPCG
35 PCG
36 CKH2
37 CKH1
38 VDD1
39 XSTH
40 STH
41 XENB
42 ENB
43 XCKV
44 CKV
45 XSTV
46 STV
47 RESET
48 DGND1
49 DGND3
50 DATA7
51 DATA6
52 DATA5
53 DATA4
54 DATA3
55 DATA2
56 VDD3(1.8V)
57 DATA1
58 DATA0
59 CLKIN
60 VDD1(2.85V)
61 SCLK
62 SDATA
63 DGND1
64 SCS
C915 1[KB]
R919 PT
R920 0
R921 56
R922 PT
R924 0
R925 0
R926
R927
R928
C916 2R2[KB]
C917 2R2[KB]
C918 PT
C919 2R2[KB]

order of the parts,
number listed in the parts list.
nber on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

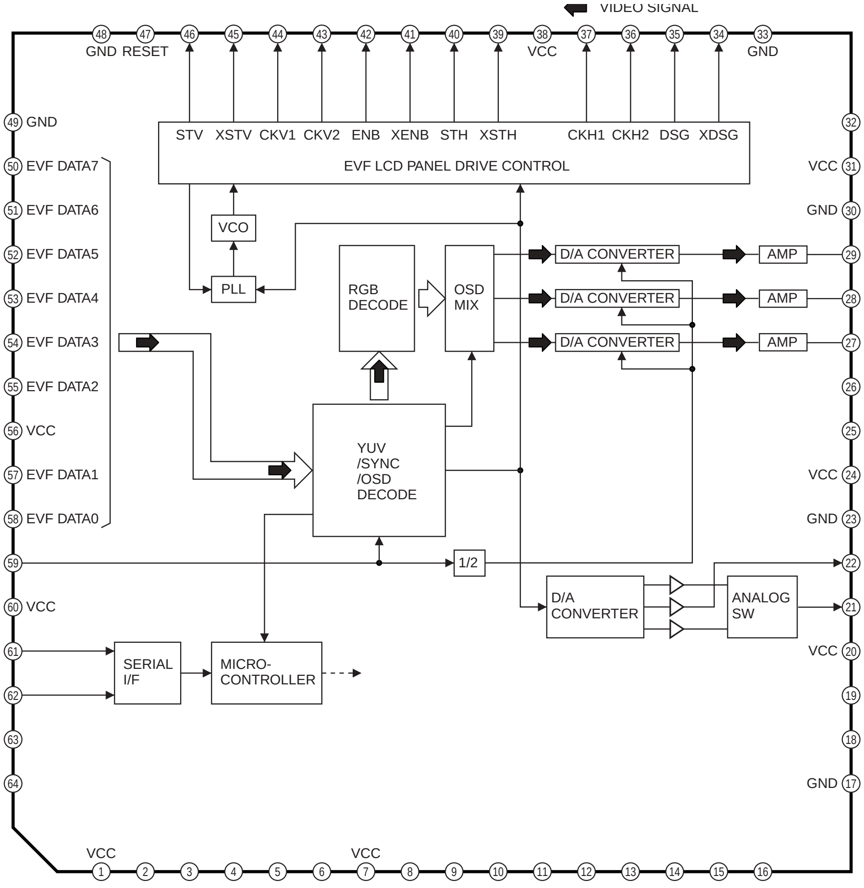
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

SIGNAL ⇦ PB VIDEO SIGNAL



EVF_STV 266 TO M I
EVF_XSTV 267 TO M I
EVF_CKV1 268 TO M I
EVF_CKV2 269 TO M I
EVF_ENB 270 TO M I
EVF_XENB 271 TO M I
EVF_STH 272 TO M I
EVF_XSTH 273 TO M I
EVF_CKH1 274 TO M I
EVF_CKH2 275 TO M I
EVF_DSG 276 TO M I
EVF_XDSG 277 TO M I
R924 0
R925 0
EVF_R 278 TO M I
EVF_G 279 TO M I
EVF_B 280 TO M I
R927 100
R928 100
R926 100
C920 PT
C921 PT
C922 PT
C919 2R2[KB]
EVF_DSD 281 TO M I
EVF_COM 282 TO M I

IC901 IC- DETAIL BLOCK DIAGRAM

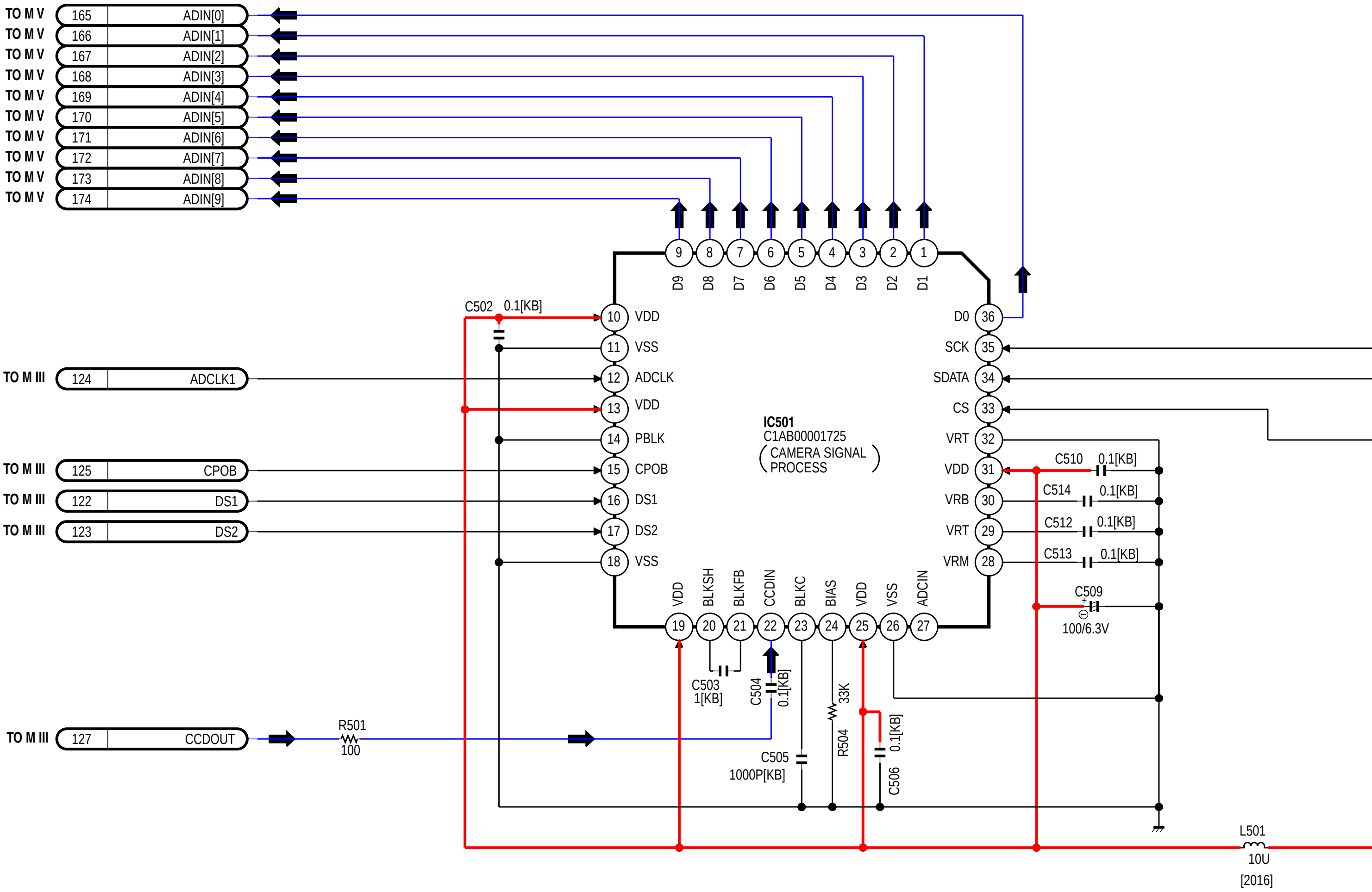


VIDEO SIGNAL
GND RESET
VCC
GND
STV XSTV CKV1 CKV2 ENB XENB STH XSTH CKH1 CKH2 DSG XDSG
EVF LCD PANEL DRIVE CONTROL
VCO
PLL
RGB DECODE
OSD MIX
D/A CONVERTER
AMP
YUV /SYNC /OSD DECODE
1/2
D/A CONVERTER
ANALOG SW
SERIAL I/F
MICRO-CONTROLLER
GND
EVF DATA7
EVF DATA6
EVF DATA5
EVF DATA4
EVF DATA3
EVF DATA2
VCC
EVF DATA1
EVF DATA0
VCC
VCC
GND
VCC
GND
VCC
GND
VCC
VCC

LINK TO VOLTAGE CHART

MAIN XII SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

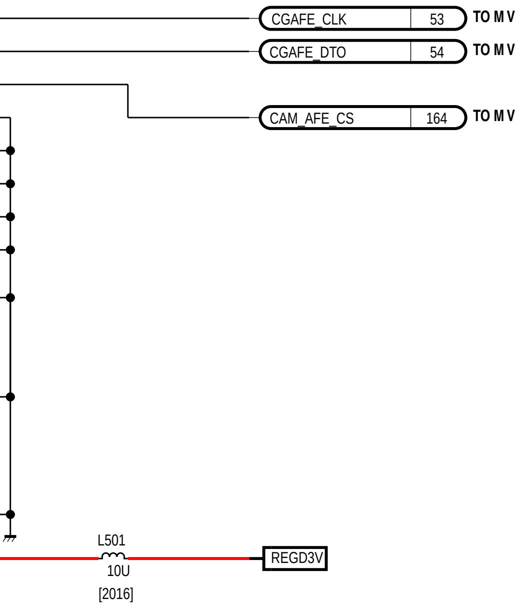


TO M V 165 ADIN[0]
TO M V 166 ADIN[1]
TO M V 167 ADIN[2]
TO M V 168 ADIN[3]
TO M V 169 ADIN[4]
TO M V 170 ADIN[5]
TO M V 171 ADIN[6]
TO M V 172 ADIN[7]
TO M V 173 ADIN[8]
TO M V 174 ADIN[9]
TO M III 124 ADCLK1
TO M III 125 CPOB
TO M III 122 DS1
TO M III 123 DS2
TO M III 127 CCDOUT
R501
100
C502 0.1[KB]
IC501
C1AB00001725
CAMERA SIGNAL PROCESS
1 D1
2 D2
3 D3
4 D4
5 D5
6 D6
7 D7
8 D8
9 D9
10 VDD
11 VSS
12 ADCLK
13 VDD
14 PBLK
15 CPOB
16 DS1
17 DS2
18 VSS
19 VDD
20 BLKSH
21 BLKFB
22 CCDIN
23 BLKC
24 BIAS
25 VDD
26 VSS
27 ADCIN
28 VRM
29 VRT
30 VRB
31 VDD
32 VRT
33 CS
34 SDATA
35 SCK
36 D0
C510 0.1[KB]
C514 0.1[KB]
C512 0.1[KB]
C513 0.1[KB]
C509
100/6.3V
C503
1[KB]
C504
0.1[KB]
R504
33K
C505
1000P[KB]
C506
0.1[KB]
L501
10U
[2016]

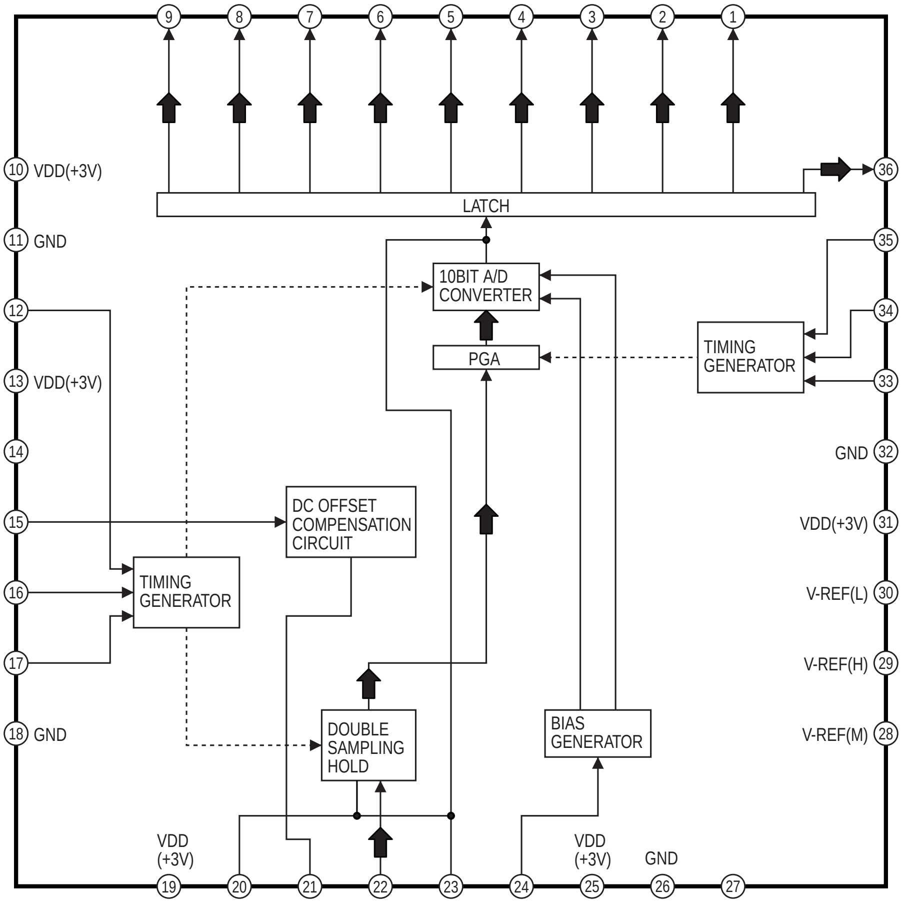
order of the parts,
number listed in the parts list.
nber on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


CGAFE_CLK
53
TO M V
CGAFE_DTO
54
TO M V
CAM_AFE_CS
164
TO M V
L501
10U
[2016]
REGD3V

IC501 IC- DETAIL BLOCK DIAGRAM


9
8
7
6
5
4
3
2
1
10 VDD(+3V)
36
LATCH
11 GND
35
10BIT A/D
CONVERTER
12
34
PGA
TIMING
GENERATOR
13 VDD(+3V)
33
14
GND 32
15
DC OFFSET
COMPENSATION
CIRCUIT
VDD(+3V) 31
16
TIMING
GENERATOR
V-REF(L) 30
17
V-REF(H) 29
18 GND
DOUBLE
SAMPLING
HOLD
BIAS
GENERATOR
V-REF(M) 28
VDD
(+3V)
VDD
(+3V)
GND
19
20
21
22
23
24
25
26
27

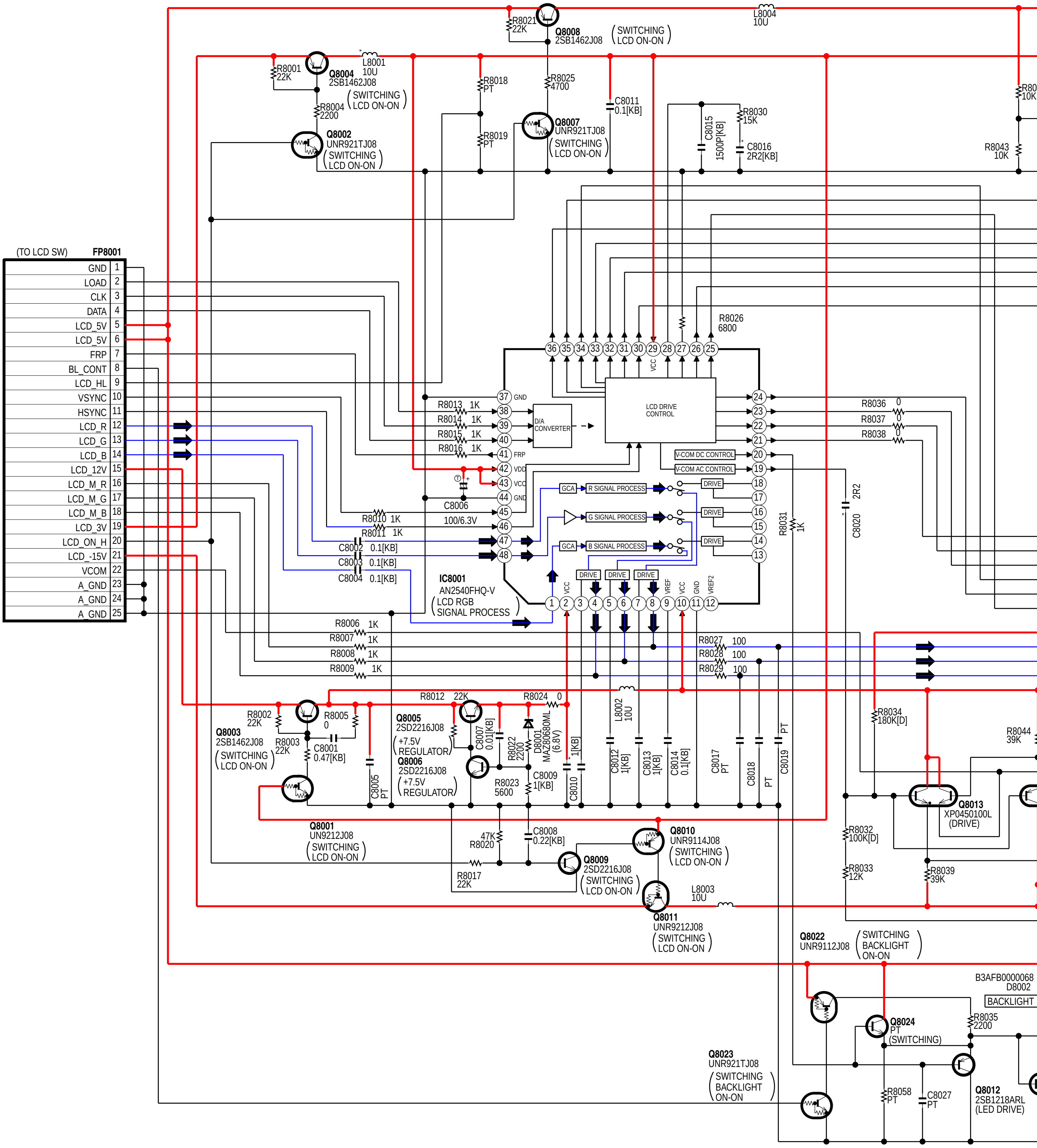
LINK TO VOLTAGE CHART

LSJB8262
MAIN XII SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

9.3. LCD SCHEMATIC DIAGRAM

LCD SCHEMATIC DIAGRAM

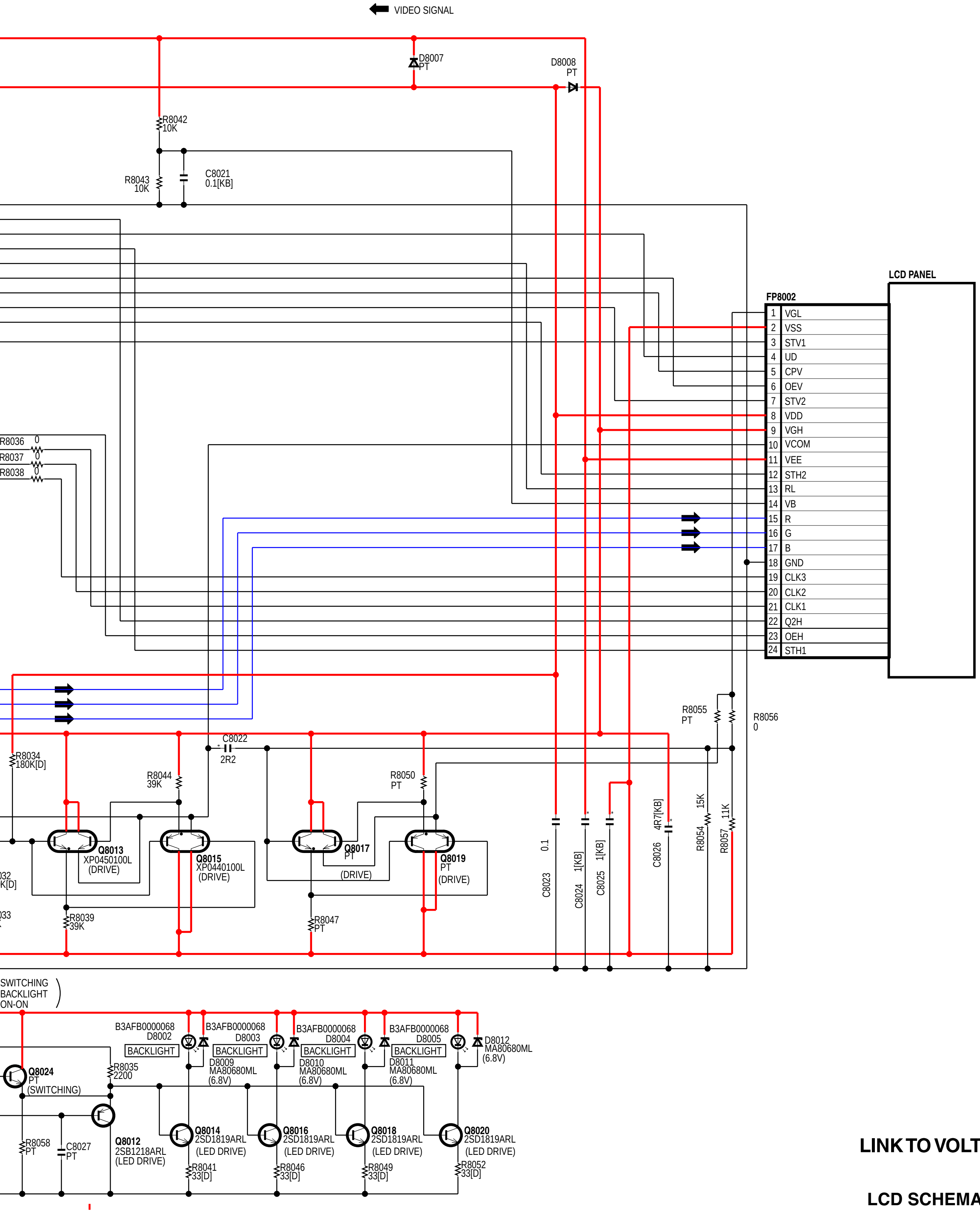
NOTE: For placing a purc
be sure to use the
Do not use the par


(TO LCD SW)
FP8001
1 GND
2 LOAD
3 CLK
4 DATA
5 LCD_5V
6 LCD_5V
7 FRP
8 BL_CONT
9 LCD_HL
10 VSYNC
11 HSYNC
12 LCD_R
13 LCD_G
14 LCD_B
15 LCD_12V
16 LCD_M_R
17 LCD_M_G
18 LCD_M_B
19 LCD_3V
20 LCD_ON_H
21 LCD_-15V
22 VCOM
23 A_GND
24 A_GND
25 A_GND
R8021 22K
Q8008 2SB1462J08
(SWITCHING LCD ON-ON)
L8004 10U
R8001 22K
Q8004 2SB1462J08
(SWITCHING LCD ON-ON)
L8001 10U
R8004 2200
Q8002 UNR921TJ08
(SWITCHING LCD ON-ON)
R8018 PT
R8019 PT
R8025 4700
Q8007 UNR921TJ08
(SWITCHING LCD ON-ON)
C8011 0.1[KB]
C8015 1500P[KB]
R8030 15K
C8016 2R2[KB]
R80 10K
R8043 10K
R8026 6800
IC8001 AN2540FHQ-V
(LCD RGB SIGNAL PROCESS)
LCD DRIVE CONTROL
D/A CONVERTER
V-COM DC CONTROL
V-COM AC CONTROL
GCA
R SIGNAL PROCESS
G SIGNAL PROCESS
B SIGNAL PROCESS
DRIVE
VCC
GND
FRP
VDD
VREF
VREF2
R8013 1K
R8014 1K
R8015 1K
R8016 1K
C8006 100/6.3V
R8010 1K
R8011 1K
C8002 0.1[KB]
C8003 0.1[KB]
C8004 0.1[KB]
R8036 0
R8037 0
R8038 0
R8031 1K
C8020 2R2
R8006 1K
R8007 1K
R8008 1K
R8009 1K
R8027 100
R8028 100
R8029 100
R8012 22K
R8024 0
R8002 22K
R8005 0
Q8003 2SB1462J08
(SWITCHING LCD ON-ON)
R8003 22K
C8001 0.47[KB]
Q8005 2SD2216J08
(+7.5V REGULATOR)
Q8006 2SD2216J08
(+7.5V REGULATOR)
C8007 0.01[KB]
R8022 2200
D8001 MAZ80680ML (6.8V)
C8010 1[KB]
C8005 PT
R8023 5600
C8009 1[KB]
L8002 10U
C8012 1[KB]
C8013 1[KB]
C8014 0.1[KB]
C8017 PT
C8018 PT
C8019 PT
R8034 180K[D]
R8044 39K
Q8013 XP0450100L (DRIVE)
Q8001 UN9212J08
(SWITCHING LCD ON-ON)
R8020 47K
C8008 0.22[KB]
R8017 22K
Q8010 UNR9114J08
(SWITCHING LCD ON-ON)
Q8009 2SD2216J08
(SWITCHING LCD ON-ON)
L8003 10U
Q8011 UNR9212J08
(SWITCHING LCD ON-ON)
R8032 100K[D]
R8033 12K
R8039 39K
Q8022 UNR9112J08
(SWITCHING BACKLIGHT ON-ON)
B3AFB0000068 D8002
BACKLIGHT
Q8024 PT (SWITCHING)
R8035 2200
Q8023 UNR921TJ08
(SWITCHING BACKLIGHT ON-ON)
R8058 PT
C8027 PT
Q8012 2SB1218ARL (LED DRIVE)

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


VIDEO SIGNAL
D8007 PT
D8008 PT
R8042 10K
R8043 10K
C8021 0.1[KB]
LCD PANEL
FP8002
1 VGL
2 VSS
3 STV1
4 UD
5 CPV
6 OEV
7 STV2
8 VDD
9 VGH
10 VCOM
11 VEE
12 STH2
13 RL
14 VB
15 R
16 G
17 B
18 GND
19 CLK3
20 CLK2
21 CLK1
22 Q2H
23 OEH
24 STH1
R8036 0
R8037 0
R8038 0
R8055 PT
R8056 0
C8022 2R2
R8034 180K[D]
R8044 39K
R8050 PT
Q8013 XP0450100L (DRIVE)
Q8015 XP0440100L (DRIVE)
Q8017 PT (DRIVE)
Q8019 PT (DRIVE)
R8039 39K
R8047 PT
C8023 0.1
C8024 1[KB]
C8025 1[KB]
C8026 4R7[KB]
R8054 15K
R8057 11K
SWITCHING BACKLIGHT ON-ON
B3AFB0000068 D8002 BACKLIGHT
B3AFB0000068 D8003 BACKLIGHT
B3AFB0000068 D8004 BACKLIGHT
B3AFB0000068 D8005 BACKLIGHT
D8009 MA80680ML (6.8V)
D8010 MA80680ML (6.8V)
D8011 MA80680ML (6.8V)
D8012 MA80680ML (6.8V)
Q8024 PT (SWITCHING)
R8035 2200
R8058 PT
C8027 PT
Q8012 2SB1218ARL (LED DRIVE)
Q8014 2SD1819ARL (LED DRIVE)
Q8016 2SD1819ARL (LED DRIVE)
Q8018 2SD1819ARL (LED DRIVE)
Q8020 2SD1819ARL (LED DRIVE)
R8041 33[D]
R8046 33[D]
R8049 33[D]
R8052 33[D]

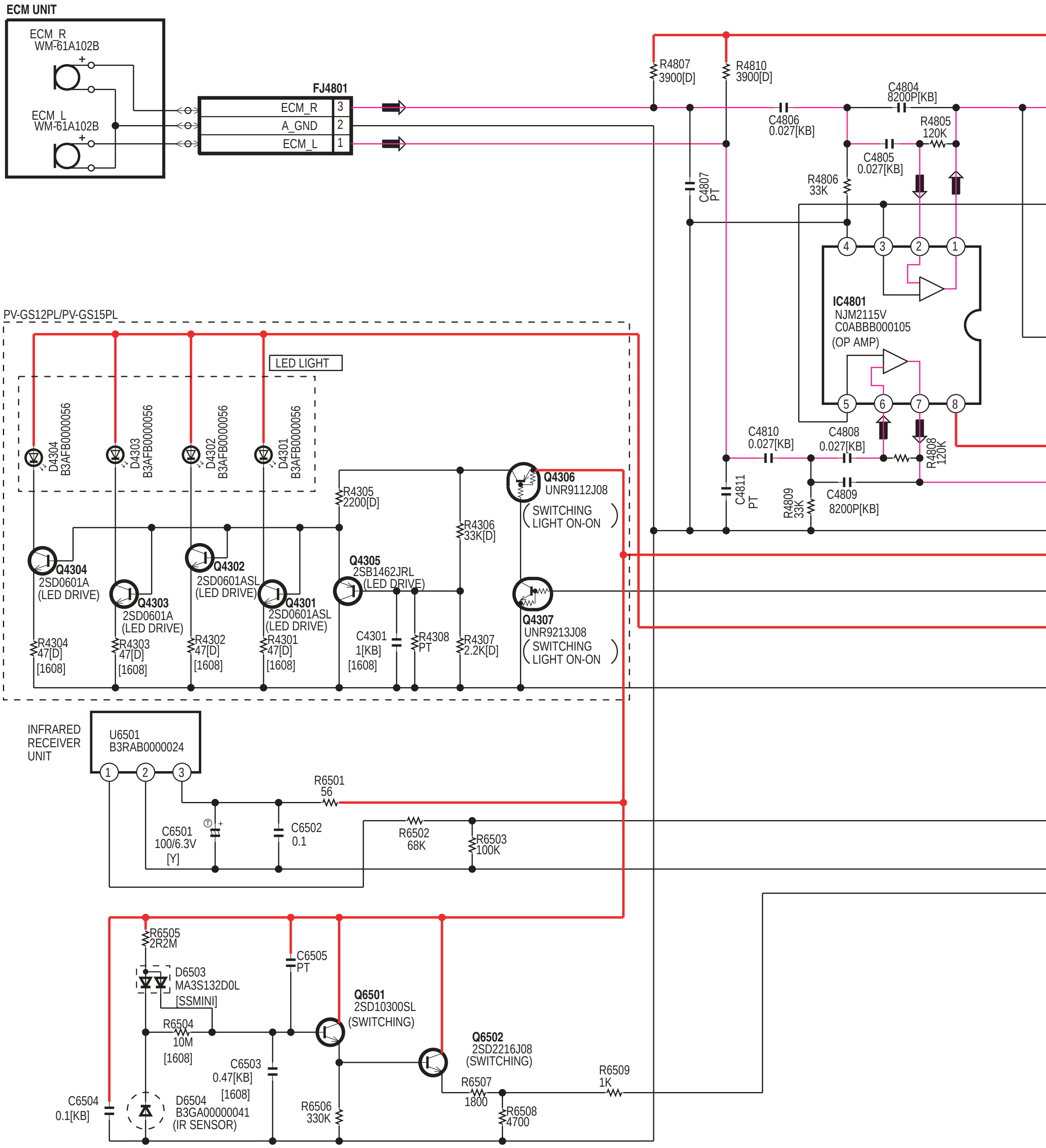
LINK TO VOLTAGE CHART

LSJB8267
LCD SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

9.4. FRONT SCHEMATIC DIAGRAM

FRONT SCHEMATIC DIAGRAM

NOTE: For placing a purcl
be sure to use the
Do not use the par

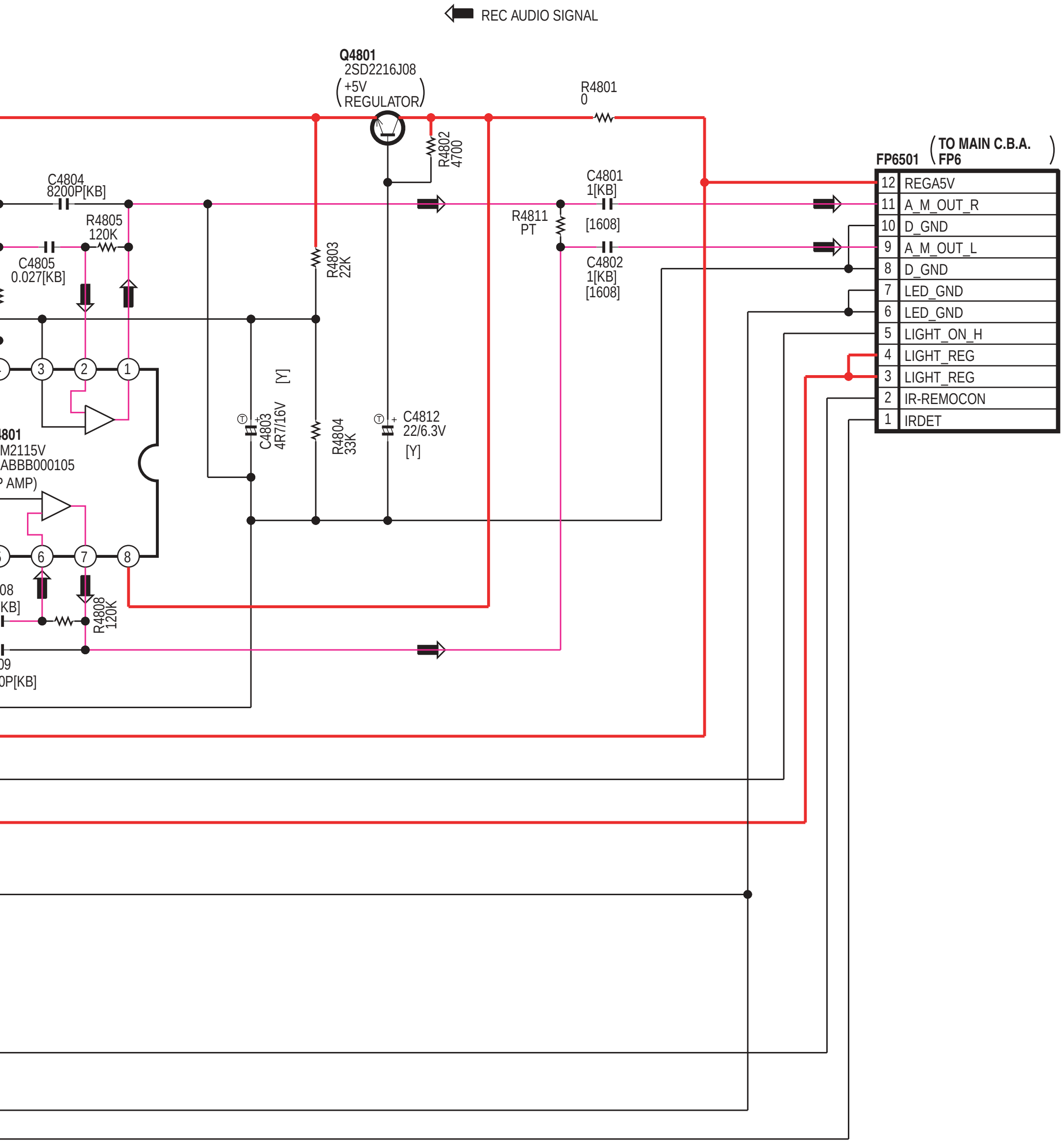


ECM UNIT
ECM_R
WM-61A102B
ECM_L
WM-61A102B
FJ4801
ECM_R 3
A_GND 2
ECM_L 1
R4807
3900[D]
R4810
3900[D]
C4804
8200P[KB]
C4806
0.027[KB]
R4805
120K
C4805
0.027[KB]
C4807
PT
R4806
33K
IC4801
NJM2115V
C0ABBB000105
(OP AMP)
C4810
0.027[KB]
C4808
0.027[KB]
R4808
120K
C4811
PT
R4809
33K
C4809
8200P[KB]
PV-GS12PL/PV-GS15PL
LED LIGHT
D4304
B3AFB0000056
D4303
B3AFB0000056
D4302
B3AFB0000056
D4301
B3AFB0000056
Q4306
UNR9112J08
SWITCHING
LIGHT ON-ON
R4305
2200[D]
R4306
33K[D]
Q4304
2SD0601A
(LED DRIVE)
Q4302
2SD0601ASL
(LED DRIVE)
Q4303
2SD0601A
(LED DRIVE)
Q4301
2SD0601ASL
(LED DRIVE)
Q4305
2SB1462JRL
(LED DRIVE)
Q4307
UNR9213J08
SWITCHING
LIGHT ON-ON
R4304
47[D]
[1608]
R4303
47[D]
[1608]
R4302
47[D]
[1608]
R4301
47[D]
[1608]
C4301
1[KB]
[1608]
R4308
PT
R4307
2.2K[D]
INFRARED
RECEIVER
UNIT
U6501
B3RAB0000024
R6501
56
C6501
100/6.3V
[Y]
C6502
0.1
R6502
68K
R6503
100K
R6505
2R2M
D6503
MA3S132D0L
[SSMINI]
C6505
PT
Q6501
2SD10300SL
(SWITCHING)
R6504
10M
[1608]
C6503
0.47[KB]
[1608]
Q6502
2SD2216J08
(SWITCHING)
R6507
1800
R6509
1K
C6504
0.1[KB]
D6504
B3GA00000041
(IR SENSOR)
R6506
330K
R6508
4700

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC AUDIO SIGNAL
Q4801
2SD2216J08
(+5V REGULATOR)
R4801
0
R4802
4700
FP6501
(TO MAIN C.B.A. FP6)
12 REGA5V
11 A_M_OUT_R
10 D_GND
9 A_M_OUT_L
8 D_GND
7 LED_GND
6 LED_GND
5 LIGHT_ON_H
4 LIGHT_REG
3 LIGHT_REG
2 IR-REMOCON
1 IRDET
C4804
8200P[KB]
R4805
120K
C4805
0.027[KB]
C4801
1[KB]
[1608]
R4811
PT
C4802
1[KB]
[1608]
R4803
22K
[Y]
C4803
4R7/16V
R4804
33K
C4812
22/6.3V
[Y]
3
2
1
801
M2115V
ABBB000105
AMP)
6
7
8
08
KB]
R4808
120K
09
0P[KB]

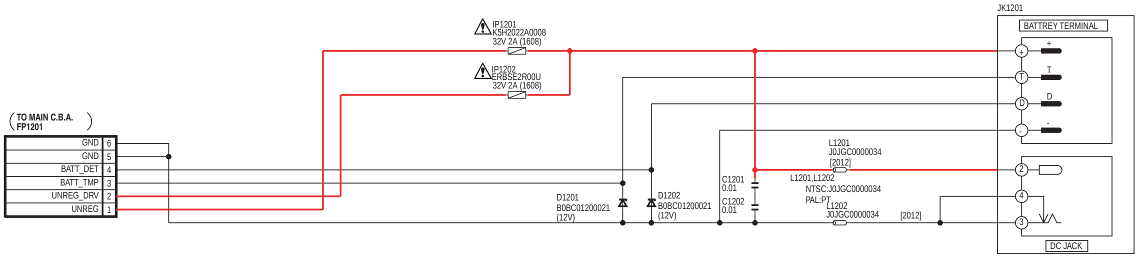
LSJB8264
FRONT SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

9.5. REAR / JACK SCHEMATIC DIAGRAMS

REAR SCHEMATIC DIAGRAM

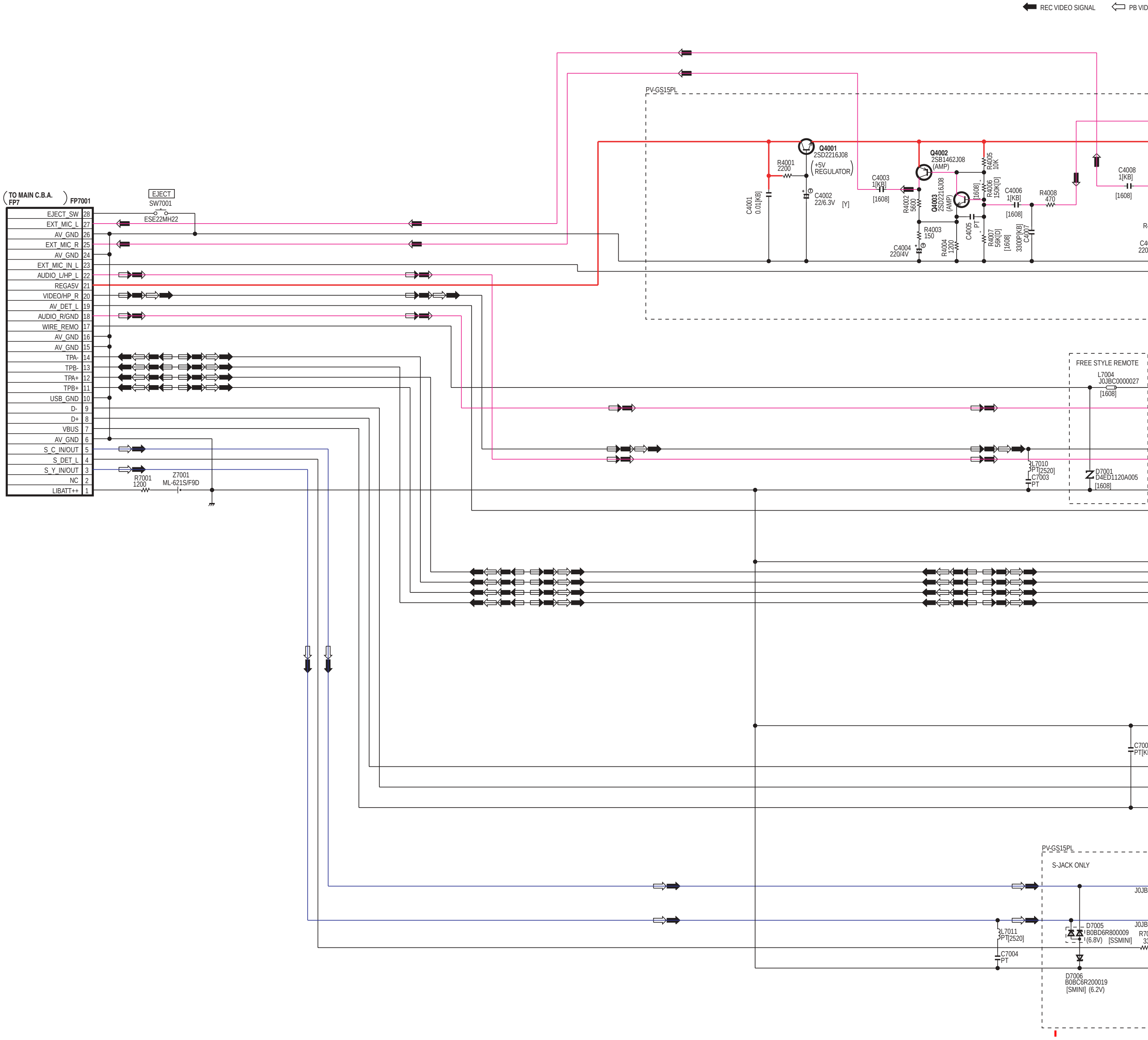
NOTE: For placing a purcl
be sure to use the
Do not use the par

IMPORTANT SAFETY NOTIC
COMPONENTS IDENTIFIED
SPECIAL CHARACTERISTIC
WHEN REPLACING ANY OF
USE ONLY THE SPECIFIED


TO MAIN C.B.A.
FP1201
GND 6
GND 5
BATT_DET 4
BATT_TMP 3
UNREG_DRV 2
UNREG 1
IP1201
K5H2022A0008
32V 2A (1608)
IP1202
ERBSE2R00U
32V 2A (1608)
D1201
B0BC01200021
(12V)
D1202
B0BC01200021
(12V)
C1201
0.01
C1202
0.01
L1201
J0JGC0000034
[2012]
L1201,L1202
NTSC:J0JGC0000034
PAL:PT
L1202
J0JGC0000034
[2012]
JK1201
BATTREY TERMINAL
+
T
D
-
2
4
3
DC JACK

LSJB8263

JACK SCHEMATIC DIAGRAM


REC VIDEO SIGNAL
PB VID
TO MAIN C.B.A.
FP7
FP7001
EJECT_SW 28
EXT_MIC_L 27
AV_GND 26
EXT_MIC_R 25
AV_GND 24
EXT_MIC_IN_L 23
AUDIO_L/HP_L 22
REGA5V 21
VIDEO/HP_R 20
AV_DET_L 19
AUDIO_R/GND 18
WIRE_REMO 17
AV_GND 16
AV_GND 15
TPA- 14
TPB- 13
TPA+ 12
TPB+ 11
USB_GND 10
D- 9
D+ 8
VBUS 7
AV_GND 6
S_C_IN/OUT 5
S_DET_L 4
S_Y_IN/OUT 3
NC 2
LIBATT++ 1
EJECT
SW7001
ESE22MH22
R7001
1200
Z7001
ML-621S/F9D
PV-GS15PL
Q4001
2SD2216J08
(+5V REGULATOR)
R4001
2200
C4001
0.01[KB]
C4002
22/6.3V
[Y]
C4003
1[KB]
[1608]
R4002
5600
Q4002
2SB1462J08
(AMP)
Q4003
2SD2216J08
(AMP)
R4003
150
C4004
220/4V
R4004
1200
C4005
PT
R4005
10K
R4006
150K[D]
[1608]
R4007
56K[D]
[1608]
C4006
1[KB]
[1608]
3300P[KB]
C4007
R4008
470
C4008
1[KB]
[1608]
FREE STYLE REMOTE
L7004
J0JBC0000027
[1608]
D7001
D4ED1120A005
[1608]
L7010
PT[2520]
C7003
PT
PV-GS15PL
S-JACK ONLY
L7011
PT[2520]
C7004
PT
D7005
B0BD6R800009
(6.8V) [SSMINI]
D7006
B0BC6R200019
[SMINI] (6.2V)

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

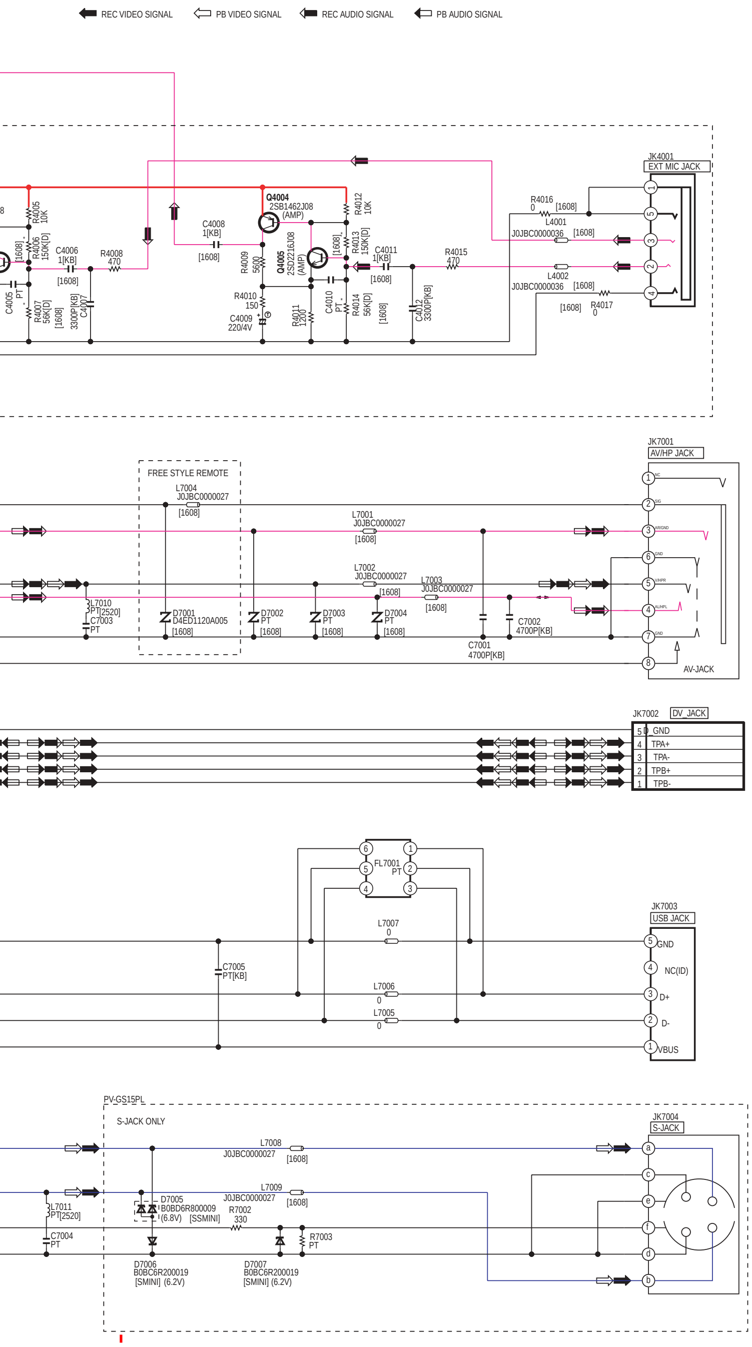
NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 2A 32V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 2A 32V

⚠ 2A 32V


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
JK4001
EXT MIC JACK
Q4004
2SB1462J08
(AMP)
Q4005
2SD2216J08
(AMP)
R4005 10K
R4006 150K[D]
R4007 56K[D]
R4008 470
R4009 5600
R4010 150
R4011 1200
R4012 10K
R4013 150K[D]
R4014 56K[D]
R4015 470
R4016 0
R4017 0
C4005 PT
C4006 1[KB]
C4007 3300P[KB]
C4008 1[KB]
C4009 220/4V
C4010 PT
C4011 1[KB]
C4012 3300P[KB]
L4001 J0JBC0000036
L4002 J0JBC0000036
[1608]
JK7001
AV/HP JACK
NC
SIG
AR/GND
GND
V/HPR
AL/HPL
GND
AV-JACK
FREE STYLE REMOTE
L7004 J0JBC0000027
L7001 J0JBC0000027
L7002 J0JBC0000027
L7003 J0JBC0000027
L7010 PT[2520]
C7003 PT
D7001 D4ED1120A005
D7002 PT
D7003 PT
D7004 PT
C7001 4700P[KB]
C7002 4700P[KB]
JK7002 DV_JACK
5 D_GND
4 TPA+
3 TPA-
2 TPB+
1 TPB-
FL7001 PT
JK7003
USB JACK
5 GND
4 NC(ID)
3 D+
2 D-
1 VBUS
L7007 0
L7006 0
L7005 0
C7005 PT[KB]
PV-GS15PL
S-JACK ONLY
JK7004
S-JACK
L7008 J0JBC0000027
L7009 J0JBC0000027
L7011 PT[2520]
C7004 PT
D7005 B0BD6R800009 (6.8V) [SSMINI]
R7002 330
R7003 PT
D7006 B0BC6R200019 [SMINI] (6.2V)
D7007 B0BC6R200019 [SMINI] (6.2V)

LINK TO VOLTAGE CHART

LSJB8265

REAR SCHEMATIC DIAGRAM
FRONT SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

9.6. EVF BACKLIGHT / SIDE CASE R SCHEMATIC DIAGRAMS

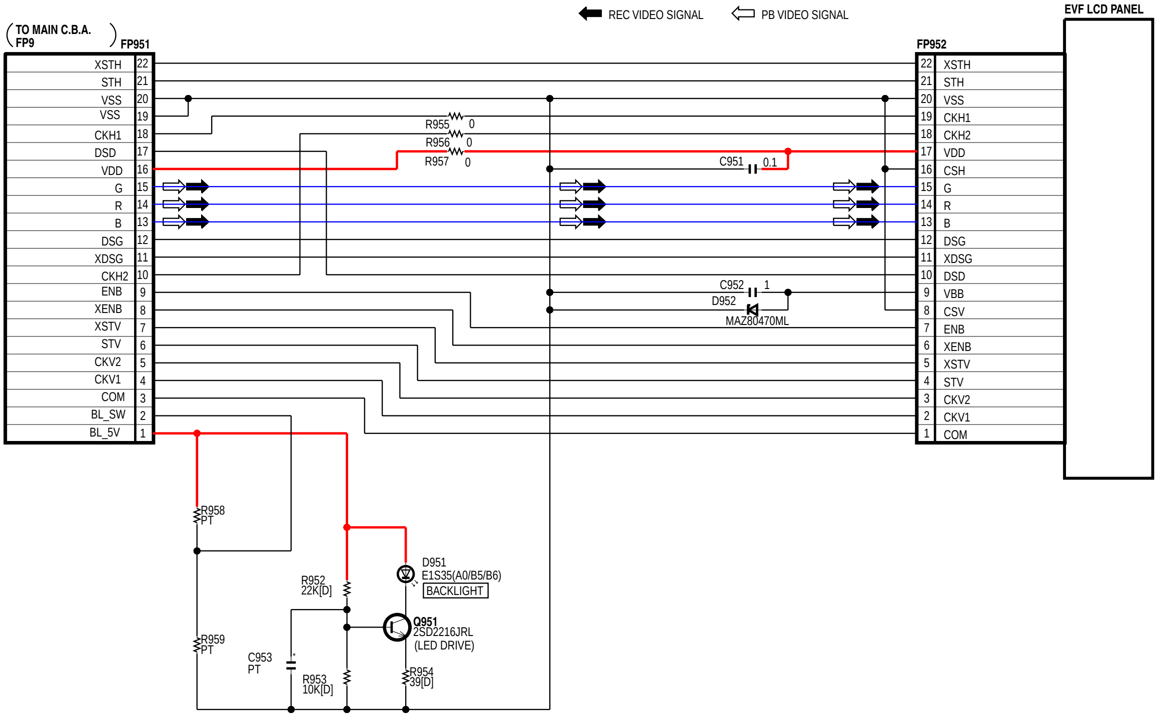
NOTE: For placing a purcl
be sure to use the
Do not use the par

EVF BACKLIGHT SCHEMATIC DIAGRAM

SIDE

“FOR REFERENCE ONLY”

NOTE:
EVF BACKLIGHT IS NOT SERVICEABLE AND IS SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.



REC VIDEO SIGNAL
PB VIDEO SIGNAL
TO MAIN C.B.A. FP9
FP951
FP952
EVF LCD PANEL
XSTH 22
STH 21
VSS 20
VSS 19
CKH1 18
DSD 17
VDD 16
G 15
R 14
B 13
DSG 12
XDSG 11
CKH2 10
ENB 9
XENB 8
XSTV 7
STV 6
CKV2 5
CKV1 4
COM 3
BL_SW 2
BL_5V 1
22 XSTH
21 STH
20 VSS
19 CKH1
18 CKH2
17 VDD
16 CSH
15 G
14 R
13 B
12 DSG
11 XDSG
10 DSD
9 VBB
8 CSV
7 ENB
6 XENB
5 XSTV
4 STV
3 CKV2
2 CKV1
1 COM
R955 0
R956 0
R957 0
C951 0.1
C952 1
D952
MAZ80470ML
R958 PT
R959 PT
R952 22K[D]
D951 E1S35(A0/B5/B6)
BACKLIGHT
Q951 2SD2216JRL (LED DRIVE)
C953 PT
R953 10K[D]
R954 39[D]

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

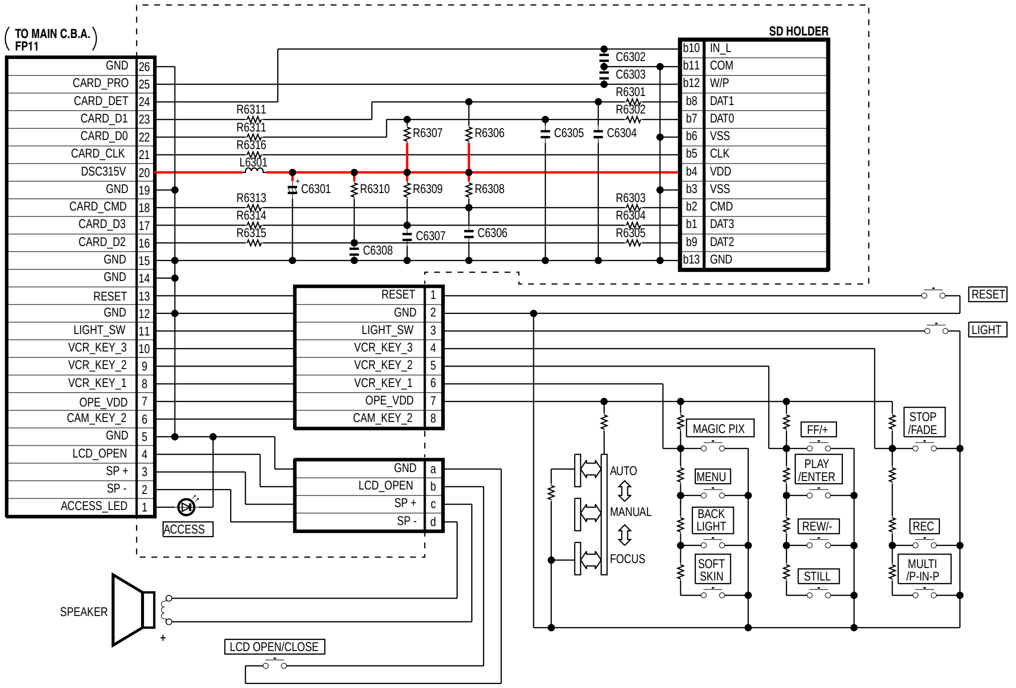
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

SIDE CASE R SCHEMATIC DIAGRAM

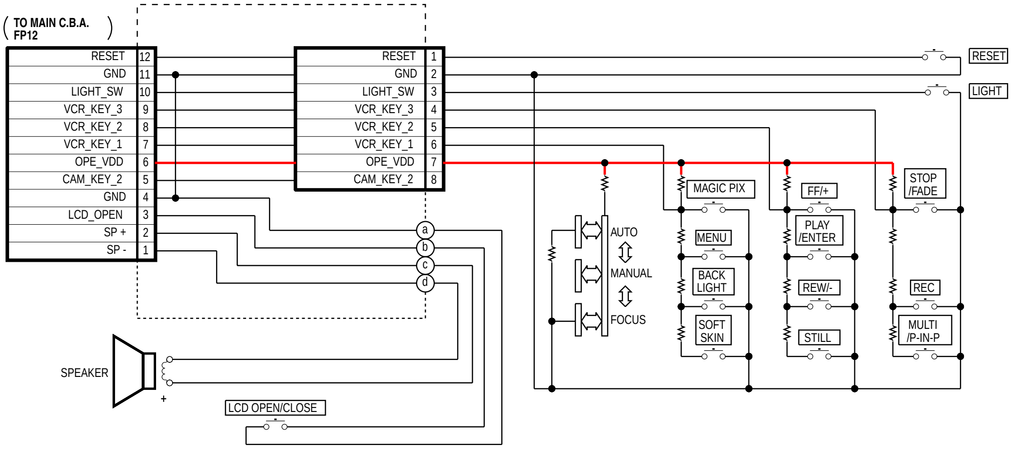
“FOR REFERENCE ONLY”

NOTE:
SIDE CASE R UNIT IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.

(WITH SD SLOT)


TO MAIN C.B.A.
FP11
GND 26
CARD_PRO 25
CARD_DET 24
CARD_D1 23
CARD_D0 22
CARD_CLK 21
DSC315V 20
GND 19
CARD_CMD 18
CARD_D3 17
CARD_D2 16
GND 15
GND 14
RESET 13
GND 12
LIGHT_SW 11
VCR_KEY_3 10
VCR_KEY_2 9
VCR_KEY_1 8
OPE_VDD 7
CAM_KEY_2 6
GND 5
LCD_OPEN 4
SP + 3
SP - 2
ACCESS_LED 1
R6311
R6311
R6316
L6301
R6313
R6314
R6315
C6301
R6310
R6309
R6308
R6307
R6306
C6305
C6304
C6302
C6303
R6301
R6302
R6303
R6304
R6305
C6308
C6307
C6306
SD HOLDER
b10 IN_L
b11 COM
b12 W/P
b8 DAT1
b7 DAT0
b6 VSS
b5 CLK
b4 VDD
b3 VSS
b2 CMD
b1 DAT3
b9 DAT2
b13 GND
RESET 1
GND 2
LIGHT_SW 3
VCR_KEY_3 4
VCR_KEY_2 5
VCR_KEY_1 6
OPE_VDD 7
CAM_KEY_2 8
GND a
LCD_OPEN b
SP + c
SP - d
ACCESS
SPEAKER
+
LCD OPEN/CLOSE
RESET
LIGHT
AUTO
MANUAL
FOCUS
MAGIC PIX
MENU
BACK LIGHT
SOFT SKIN
FF/+
PLAY /ENTER
REW/-
STILL
STOP /FADE
REC
MULTI /P-IN-P

(WITHOUT SD SLOT)


TO MAIN C.B.A.
FP12
RESET 12
GND 11
LIGHT_SW 10
VCR_KEY_3 9
VCR_KEY_2 8
VCR_KEY_1 7
OPE_VDD 6
CAM_KEY_2 5
GND 4
LCD_OPEN 3
SP + 2
SP - 1
RESET 1
GND 2
LIGHT_SW 3
VCR_KEY_3 4
VCR_KEY_2 5
VCR_KEY_1 6
OPE_VDD 7
CAM_KEY_2 8
a
b
c
d
SPEAKER
+
LCD OPEN/CLOSE
RESET
LIGHT
AUTO
MANUAL
FOCUS
MAGIC PIX
MENU
BACK LIGHT
SOFT SKIN
FF/+
PLAY /ENTER
REW/-
STILL
STOP /FADE
REC
MULTI /P-IN-P

9.7. CCD / SIDE CASE L / LCD SW SCHEMATIC DIAGRAMS

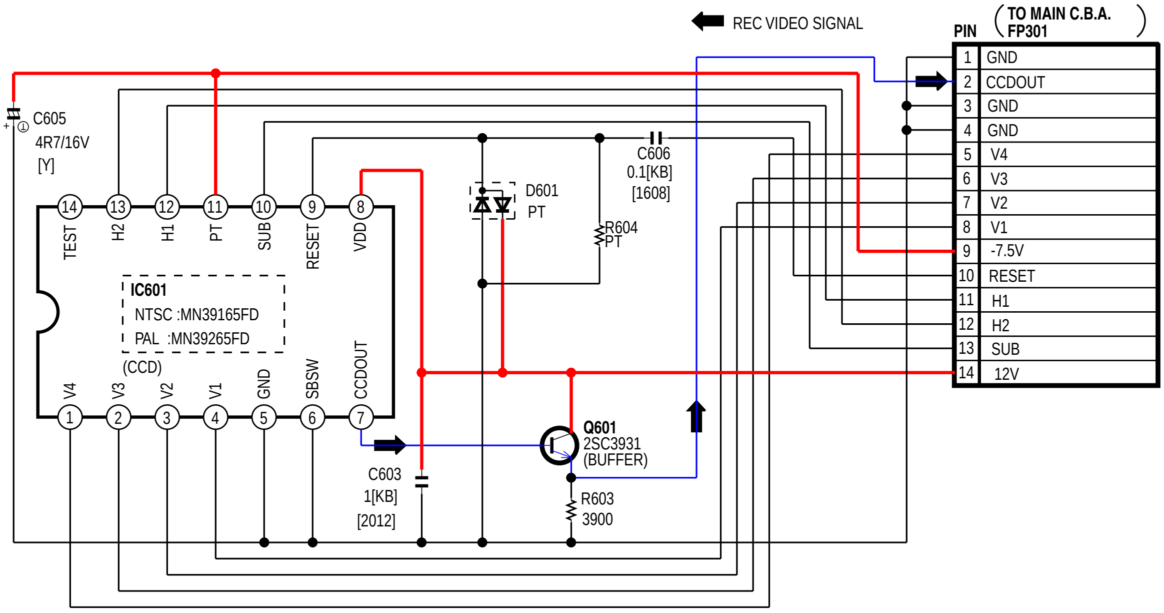
NOTE: For placing a purcl
be sure to use the
Do not use the par

CCD SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

NOTE:
CCD C.B.A. IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.

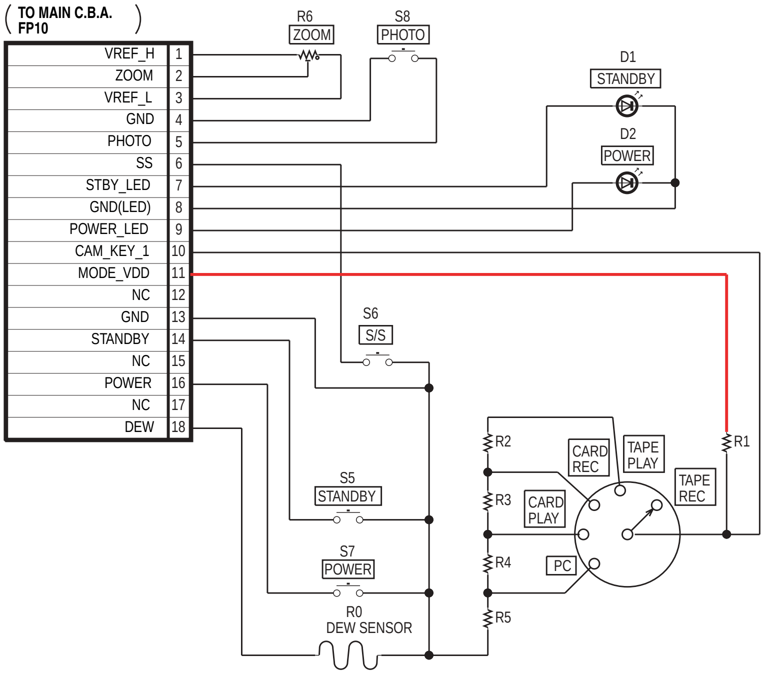
L


REC VIDEO SIGNAL
PIN
TO MAIN C.B.A. FP301
1 GND
2 CCDOUT
3 GND
4 GND
5 V4
6 V3
7 V2
8 V1
9 -7.5V
10 RESET
11 H1
12 H2
13 SUB
14 12V
C605
4R7/16V
[Y]
14 TEST
13 H2
12 H1
11 PT
10 SUB
9 RESET
8 VDD
IC601
NTSC :MN39165FD
PAL :MN39265FD
(CCD)
1 V4
2 V3
3 V2
4 V1
5 GND
6 SBSW
7 CCDOUT
D601
PT
C606
0.1[KB]
[1608]
R604
PT
C603
1[KB]
[2012]
Q601
2SC3931
(BUFFER)
R603
3900

SIDE CASE L SCHEMATIC DIAGRAM

“FOR REFERENCE ONLY”

NOTE:
SIDE CASE L UNIT IS NOT SERVICEABLE AND IS
SUPPLIED AS A UNIT ONLY FOR REPLACEMENT.

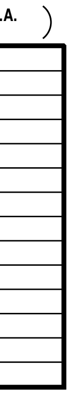

TO MAIN C.B.A. FP10
VREF_H 1
ZOOM 2
VREF_L 3
GND 4
PHOTO 5
SS 6
STBY_LED 7
GND(LED) 8
POWER_LED 9
CAM_KEY_1 10
MODE_VDD 11
NC 12
GND 13
STANDBY 14
NC 15
POWER 16
NC 17
DEW 18
R6
ZOOM
S8
PHOTO
D1
STANDBY
D2
POWER
S6
S/S
S5
STANDBY
S7
POWER
R0
DEW SENSOR
R2
R3
R4
R5
R1
CARD REC
TAPE PLAY
CARD PLAY
TAPE REC
PC

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

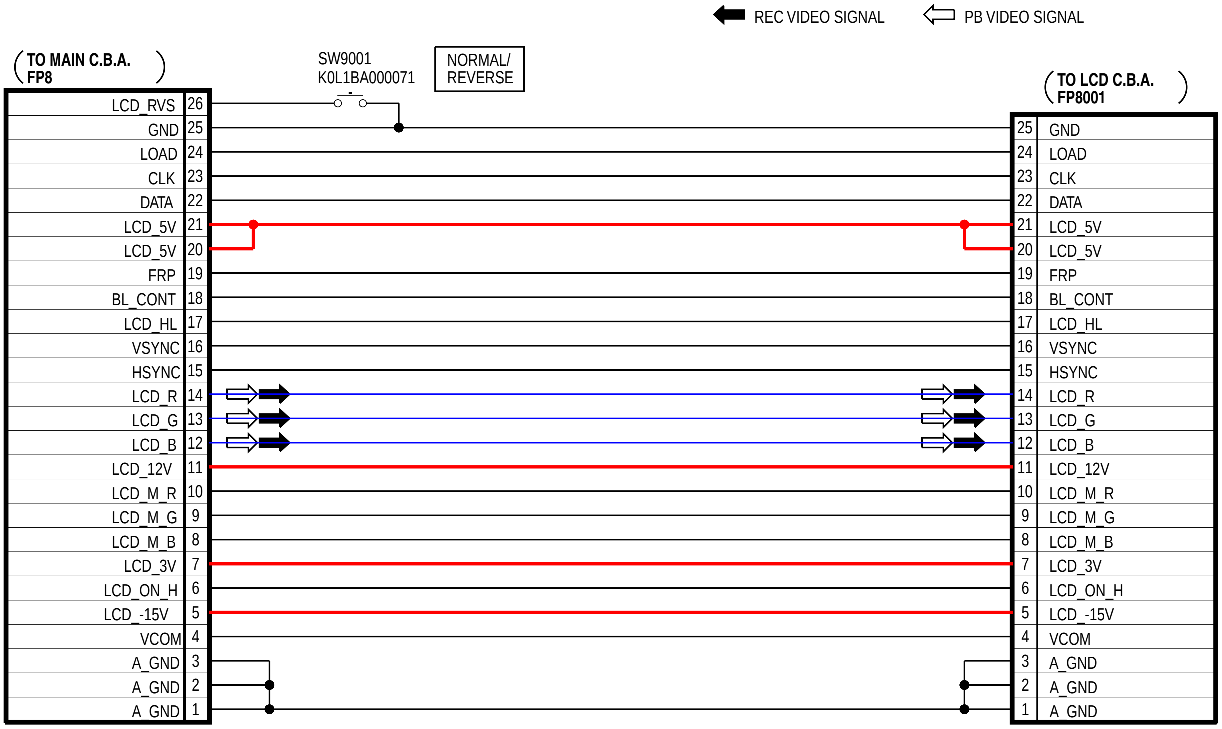
MENT.



LCD SW SCHEMATIC DIAGRAM

"FOR REFERENCE ONLY"

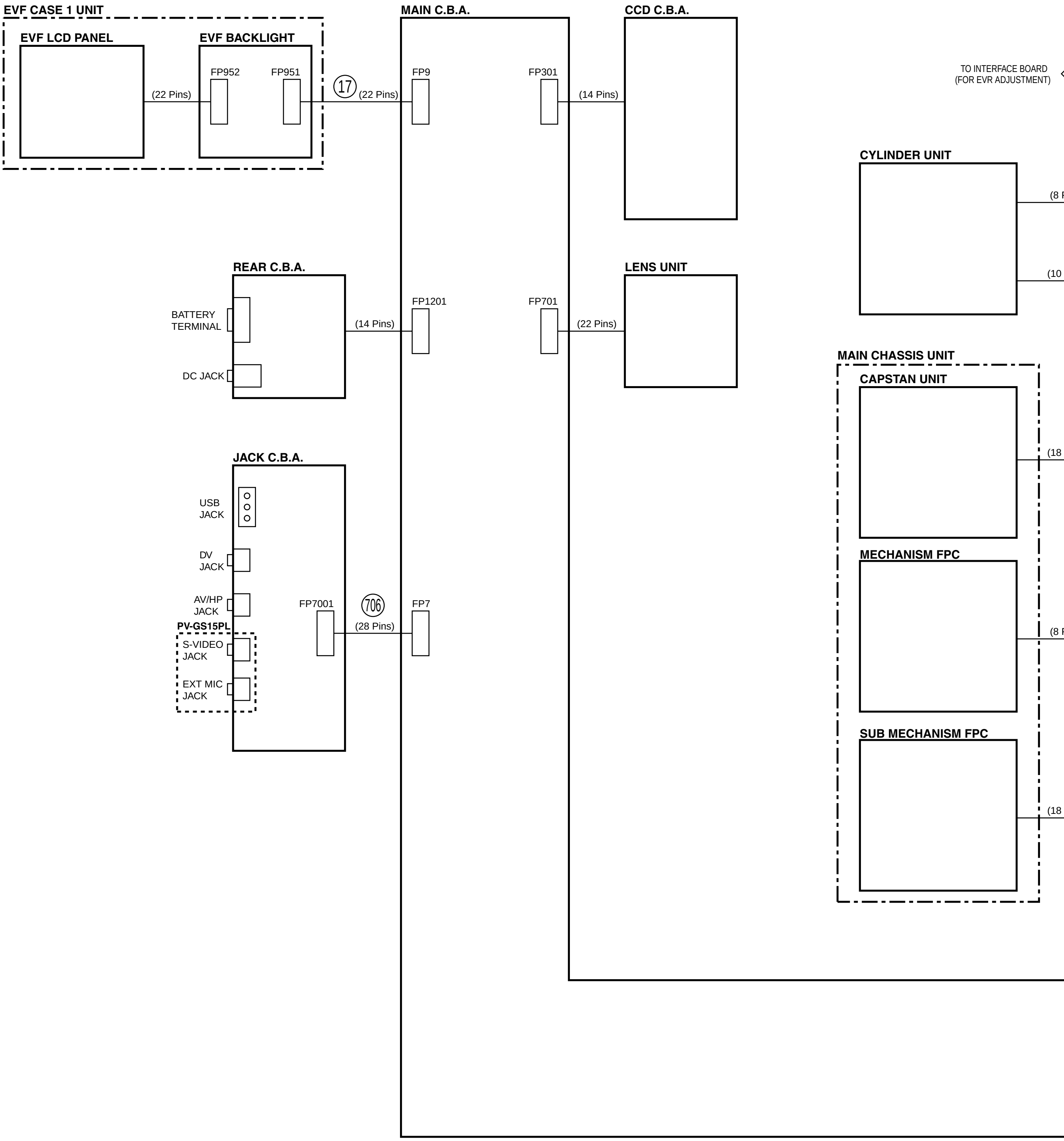
NOTE:
LCD SW IS NOT SERVICEABLE AND IS
SUPPLIED AS A SHAFT CASE UNIT ONLY FOR REPLACEMENT.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
TO MAIN C.B.A. FP8
SW9001
K0L1BA000071
NORMAL/ REVERSE
TO LCD C.B.A. FP8001
LCD_RVS 26
GND 25
LOAD 24
CLK 23
DATA 22
LCD_5V 21
LCD_5V 20
FRP 19
BL_CONT 18
LCD_HL 17
VSYNC 16
HSYNC 15
LCD_R 14
LCD_G 13
LCD_B 12
LCD_12V 11
LCD_M_R 10
LCD_M_G 9
LCD_M_B 8
LCD_3V 7
LCD_ON_H 6
LCD_-15V 5
VCOM 4
A_GND 3
A_GND 2
A_GND 1
25 GND
24 LOAD
23 CLK
22 DATA
21 LCD_5V
20 LCD_5V
19 FRP
18 BL_CONT
17 LCD_HL
16 VSYNC
15 HSYNC
14 LCD_R
13 LCD_G
12 LCD_B
11 LCD_12V
10 LCD_M_R
9 LCD_M_G
8 LCD_M_B
7 LCD_3V
6 LCD_ON_H
5 LCD_-15V
4 VCOM
3 A_GND
2 A_GND
1 A_GND

9.8. INTERCONNECTION SCHEMATIC DIAGRAM

INTERCONNECTION SCHEMATIC DIAGRAM

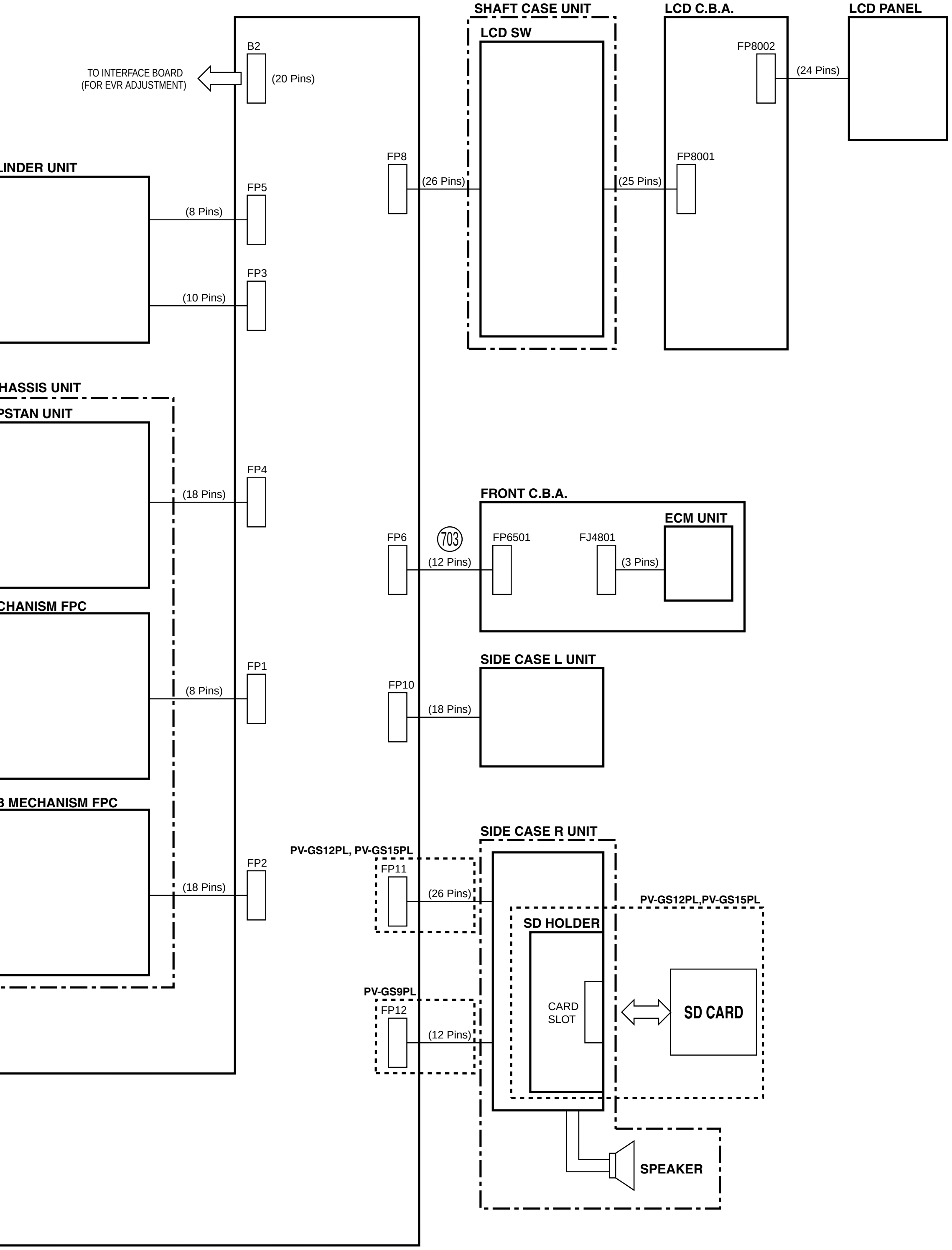
NOTE: For placing a purcl
be sure to use the
Do not use the par


EVF CASE 1 UNIT
EVF LCD PANEL
EVF BACKLIGHT
FP952
FP951
(22 Pins)
17
(22 Pins)
MAIN C.B.A.
FP9
FP301
(14 Pins)
CCD C.B.A.
TO INTERFACE BOARD
(FOR EVR ADJUSTMENT)
CYLINDER UNIT
(8 P
(10
REAR C.B.A.
BATTERY
TERMINAL
DC JACK
(14 Pins)
FP1201
FP701
(22 Pins)
LENS UNIT
MAIN CHASSIS UNIT
CAPSTAN UNIT
(18
JACK C.B.A.
USB
JACK
DV
JACK
AV/HP
JACK
PV-GS15PL
S-VIDEO
JACK
EXT MIC
JACK
FP7001
706
(28 Pins)
FP7
MECHANISM FPC
(8 P
SUB MECHANISM FPC
(18

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


SHAFT CASE UNIT
LCD SW
LCD C.B.A.
LCD PANEL
B2
TO INTERFACE BOARD
(FOR EVR ADJUSTMENT)
(20 Pins)
FP8002
(24 Pins)
LINDER UNIT
FP8
(26 Pins)
FP8001
(25 Pins)
FP5
(8 Pins)
FP3
(10 Pins)
HASSIS UNIT
PSTAN UNIT
FP4
(18 Pins)
FRONT C.B.A.
ECM UNIT
FP6
703
FP6501
FJ4801
(12 Pins)
(3 Pins)
CHANISM FPC
FP1
(8 Pins)
SIDE CASE L UNIT
FP10
(18 Pins)
B MECHANISM FPC
SIDE CASE R UNIT
PV-GS12PL, PV-GS15PL
FP2
(18 Pins)
FP11
(26 Pins)
PV-GS12PL,PV-GS15PL
SD HOLDER
PV-GS9PL
FP12
(12 Pins)
CARD
SLOT
SD CARD
SPEAKER

INTERCONNECTION SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

MAIN C.B.A. (CAMERA SECTION)

MODE PIN NO.	CAMERA
IC301	
1	2.9
2	0
3	0
4	3.4
5	5.0
IC302	
1	---
2	---
3	0.1
4	0.3
5	---
6	0
7	3.0
8	1.2
9	2.9
10	0
11	2.9
12	0.6
13	0
14	0
15	2.9
16	2.9
17	0
18	3.0
19	0.2
20	0.2
21	2.7
22	2.7
23	2.9
24	---
25	0
26	3.2
27	0.6
28	0
29	3.2
30	0.9
31	0
32	0
33	3.2
34	3.0
35	1.3
36	0
37	0
38	0.1
39	0.2
40	0.7
41	---
42	3.0
43	0
44	2.8
45	---
46	0.1
47	0.6
48	---
IC303	
1	---
2	0
3	1.2
4	3.2
IC304	
1	-7.0
2	-7.0
3	-0.2
4	0
5	0
6	3.0
7	0.4
8	2.9
9	0.2
10	2.9
11	---
12	2.7
13	2.9
14	2.7
15	0
16	12.0
17	-6.6
18	-6.6
19	0
20	12.0
IC701	
1	0.1
2	2.9
3	2.9
4	2.9
5	0
6	0
7	0
8	0
9	5.0
10	1.3
11	7.8
12	7.4
13	1.6
14	1.6
15	2.9
16	1.1
17	0
18	0.1
19	5.1
20	1.5
21	1.5
22	1.5
23	1.5
24	1.5
25	1.5
26	1.8
27	1.5
28	1.5
29	1.9
30	1.1
31	0.2
32	1.0
33	2.9
34	1.0
35	2.9
36	2.9
37	2.9
38	0
39	0
40	0
41	0
42	0
43	0
44	0
45	0
46	0
47	0
48	2.9
IC901	
1	2.9
2	0.3
3	2.8
4	0.3
5	0
6	0.3
7	2.9
8	2.9
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0.5
19	4.1
20	4.9
21	2.3
22	2.6
23	0
24	4.9
25	4.9
26	0.2
27	2.6
28	2.6
29	2.6
30	0
31	2.9
32	0
33	0
34	2.7
35	0.2
36	1.4
37	1.5
38	2.9
39	2.8
40	0.1
41	0.4
42	2.5
43	1.5
44	1.5
45	2.8
46	0.1
47	0.1
48	0
49	0
50	0.7
51	0.7
52	0.6
53	1.0
54	0.7
55	0.8
56	1.9
57	0.7
58	0.8
59	0.9
60	2.9
61	0
62	0
63	0
64	0
Q701	
E	7.9
C	0.1
B	7.4

MAIN C.B.A. (POWER/VIDEO/AUDIO SECTION)

MODE PIN NO.	CAMERA
IC501	
1	1.4
2	1.3
3	1.5
4	1.4
5	1.4
6	1.8
7	0.4
8	0.1
9	0
10	2.8
11	0
12	1.2
13	2.8
14	0
15	0.1
16	0.5
17	0.5
18	0
19	2.8
20	2.0
21	2.1
22	2.1
23	2.0
24	1.3
25	2.8
26	0
27	0.9
28	1.5
29	2.0
30	1.0
31	2.8
32	0
33	2.9
34	2.9
35	0.1
36	1.5
IC1001	
1	1.8
2	1.2
3	---
4	0.8
5	0
6	0
7	0
8	5.1
9	0
10	5.1
11	0
12	0
13	0
14	0
15	0.1
16	2.0
17	0.7
18	0
19	1.7
20	1.9
21	1.2
22	0.6
23	0.8
24	1.9
25	7.6
26	3.2
27	2.7
28	0
29	0
30	4.1
31	4.8
32	5.0
33	5.7
34	7.7
35	7.7
36	0.1
37	1.2
38	0.2
IC1002	
1	4.3
2	0
3	1.3
4	3.2
5	4.3
IC1003	
1	2.8
2	0
3	0
4	2.5
5	2.8
IC3101	
1	1.0
2	0.6
3	1.0
4	0.5
5	0.6
6	0.6
7	1.9
8	0
9	0
10	0
11	2.9
12	0
13	0
14	1.9
15	1.9
16	---
17	0
18	2.9
19	0.9
20	1.0
21	0
22	0
23	0
24	0
25	0.1
26	2.9
27	0
28	1.2
29	0
30	5.0
31	0.5
32	0.6
33	0
34	0.1
35	0
36	0
37	0
38	0
39	0
40	0
41	5.0
42	0
43	0.1
44	0
45	0
46	0
47	1.5
48	1.5
49	0
50	0
51	1.5
52	1.5
53	1.5
54	1.5
55	2.9
56	2.9
57	0
58	0
59	1.5
60	1.5
61	1.5
62	1.1
63	0
64	0
IC5001	
1	2.9
2	0
3	1.5
4	2.4
5	3.0
6	0.6
7	0
8	0
9	0
10	0.8
11	0
12	---
13	0
14	0.1
15	0
16	1.9
17	1.0
18	0
19	0
20	1.9
21	---
22	---
23	---
24	---
25	---
26	1.2
27	1.2
28	4.7
29	1.5
30	4.6
31	4.6
32	4.6
33	1.5
34	---
35	0.8
36	0
37	5.0
38	0
39	2.6
40	2.2
41	2.9
42	2.9
43	2.1
44	---
Q1001	
E	0
C	0
B	8.0
Q1003	
E	0
C	0
B	0.6
Q1004	
1	0
2	7.7
3	2.7
4	4.8
5	4.8
Q1005	
1	0
2	7.7
3	4.8
4	2.7
5	2.7
Q1006	
1	0
2	7.6
3	5.7
4	1.7
5	1.7
Q1007	
S	0
D	7.2
G	3.2
Q1008	
1	7.6
2	6.9
3	0
4	7.7
5	7.7
6	7.6
Q1009	
1	7.7
2	6.9
3	0
4	7.7
5	7.7
6	7.7
Q1013	
E	1.5
C	1.8
B	2.1
Q1014	
E	2.2
C	0
B	1.6
Q1015	
1	0.9
2	1.5
3	1.4
4	0.9
5	1.5
6	1.8
Q1016	
E	8.5
C	12.0
B	9.1
Q1018	
E	0
C	-4.5
B	-0.6
Q1019	
E	-6.8
C	-14.7
B	-7.3
Q1020	
E	4.9
C	3.2
B	4.3
Q1022	
E	0
C	9.1
B	0.6
Q1023	
E	3.1
C	4.9
B	3.7
Q1024	
E	0
C	1.9
B	0
Q1025	
E	0
C	3.0
B	0
Q1026	
1	0
2	0
3	0
4	5.0
5	5.0
6	5.0
Q1027	
E	0.5
C	5.0
B	0.1
Q1028	
E	1.1
C	2.9
B	0.1
Q1029	
E	0.1
C	1.9
B	0.1
Q1030	
E	0
C	0.1
B	0.7
Q1031	
E	0.1
C	0.7
B	0
Q1032	
E	2.9
C	2.9
B	0.6
Q1033	
E	12.1
C	12.0
B	0.7
Q1034	
E	-6.8
C	-6.8
B	2.9
Q1035	
E	0
C	0.1
B	1.9
Q3001	
E	3.3
C	1.5
B	3.3
TP1	5.0
TP3	5.0
TP4	3.0
TP5	3.2
TP6	3.0
TP8	2.5
TP9	1.8
TP10	1.5
TP11	12.0
TP12	12.0
TP13	-7.5
TP14	-15.0
TP15	8.0
TP16	0
TP17	0
TP50	1.3
TP3001	1.0
TP3002	0
TP3003	0.9
TP3009	0.1
TP3022	0
TP3023	1.9
TP3024	1.2
TP3025	1.9
TP3026	1.9
TP3027	0
TP3028	0.1
TP3029	0.8
TP3030	1.9
TP3201	1.0
TP3202	0.2
TP3203	0
TP3205	1.9
TP3206	0
TP3207	0
TP3208	0.1
TP3209	0
TP3505	0
TP3901	7.7
TP3902	0
TP3903	7.7
TP3905	0
TP3906	0.9
TP3907	1.9
TP3908	0
TP3911	0
TP3912	0.1
TP3913	0
TP3914	1.9
TP3921	2.8
TP3922	2.8

VOLTAGE CHART
PV-GS9PL/PV-GS12PL/PV-GS15PL

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

MAIN C.B.A. (SYSTEM CONTROL/SERVO SECTION)

MODE / PIN NO.	REC	PLAY
IC2001		
1	7.5	7.5
2	1.9	0.9
3	0	0
4	1.7	1.7
5	0.4	0.4
6	0.4	0.4
7	1.2	1.2
8	0	0
9	0	0
10	1.9	1.9
11	1.6	1.6
12	3.0	3.0
13	2.2	2.2
14	1.5	1.5
15	0.1	0.1
16	0.1	0.1
17	0	0
18	2.5	2.5
19	1.5	1.5
20	0.1	0.1
21	1.5	1.5
22	1.5	1.5
23	0	0
24	0	0
25	7.9	7.9
26	0	0
27	0.6	0.6
28	0.5	0.6
29	0.5	0.6
30	2.4	2.4
31	2.4	2.4
32	0.6	0.6
33	0.1	0.1
34	0.1	0.1
35	0.5	0.5
36	1.5	1.5
37	1.5	1.5
38	1.0	1.1
39	2.2	2.2
40	0.3	0.3
41	1.2	1.2
42	1.2	1.2
43	1.9	1.9
44	0	0
45	1.3	1.4
46	1.4	1.4
47	1.3	1.3
48	1.2	1.2
49	1.2	1.2
50	1.2	1.2
51	1.2	1.2
52	1.2	1.2
53	1.2	1.2
54	1.0	1.0
55	0.2	0.2
56	1.9	1.9
57	1.0	1.0
58	0	0
59	2.9	2.9
60	1.9	1.9
61	0	0
62	1.0	1.0
63	7.7	7.7
64	7.9	7.9
IC2002		
1	---	---
2	1.5	1.5
3	1.5	1.5
4	0	0
5	1.5	0
6	1.5	0
7	---	0
8	5.0	5.0
IC6002		
1	2.9	2.9
2	2.9	2.9
3	2.9	2.9
4	2.9	2.9
5	0	0
6	2.9	2.9
7	2.8	2.9
8	2.8	2.8
IC6003		
1	2.8	2.8
2	0.4	0.4
3	0.7	0.6
4	0	0
5	0	0
6	2.9	2.9
7	2.9	2.9
8	3.4	3.4
IC6004		
1	2.9	2.9
2	2.9	2.7
3	2.9	2.9
4	2.9	2.9
5	2.8	2.8
6	2.9	2.8
7	1.2	1.2
8	1.4	1.4
9	0	0
10	0	0
11	0.1	0.1
12	0.1	0.1
13	0	0
14	0	0
15	0.1	0.1
16	0.1	0.1
17	0	0.1
18	0	0
19	2.8	2.8
20	2.7	2.7
IC6005		
1	7.9	7.9
2	0	0
3	2.8	2.8
4	0.1	0.1
5	2.5	2.5
IC6006		
1	2.8	2.8
2	0	0
3	7.9	7.9
4	0.1	0
5	3.5	3.5
IC6007		
1	0	0
2	4.4	4.4
3	2.9	2.9
4	2.5	2.5
IC6008		
E	2.5	2.5
C	2.5	2.5
B	0	0
IC6009		
1	2.9	2.9
2	2.9	2.9
3	0	0
4	0	0
5	2.9	2.9
6	2.9	2.9
7	2.9	2.9
8	2.8	2.8
Q6001		
E	0	0
C	0	0
B	2.9	2.9
Q6002		
E	0	0
C	0.1	0.1
B	2.9	2.9
Q6003		
E	0.2	0.1
C	7.3	7.3
B	0.2	0
Q6004		
E	0	0
C	5.0	5.7
B	0	0
Q6005		
E	2.9	2.9
C	2.8	2.8
B	2.2	2.2
Q6006		
E	3.5	3.5
C	2.8	2.8
B	2.9	2.9
Q6007		
E	0	0
C	0.1	0.1
B	0.6	0.6
Q6008		
E	0.1	0.1
C	3.3	3.3
B	0.1	0.1
Q6009		
E	0.1	0.1
C	1.9	1.9
B	0	0.1
Q6010		
E	2.8	2.8
C	2.8	2.8
B	2.9	2.9
Q6011		
E	2.8	2.8
C	-1.8	-2.5
B	2.9	2.9
Q6012		
E	2.8	2.8
C	-1.9	-2.7
B	2.9	2.9
Q6013		
E	2.8	2.8
C	2.8	2.8
B	0	0
TP6001	0	0
TP6002	2.9	2.9
TP6003	2.9	2.9
TP6004	0	0
TP6005	2.9	2.9
TP6006	2.5	2.5
TP6007	2.9	2.9
TP6008	2.9	2.9
TP6011	2.9	2.9
TP6012	2.9	2.9
TP6013	2.9	2.8
TP6014	2.9	2.5
TP6015	2.9	2.8

VOLTAGE CHART
PV-GS9PL/PV-GS12PL/PV-GS15PL

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

LCD C.B.A.

MODE PIN NO.	CAMERA
IC8001	
1	7.5
2	7.3
3	2.4
4	2.4
5	2.4
6	2.5
7	2.4
8	2.4
9	2.4
10	11.9
11	0
12	---
13	---
14	---
15	---
16	---
17	---
18	---
19	6.0
20	0
21	1.4
22	1.4
23	1.2
24	0.3
25	0
26	0
27	1.0
28	1.0
29	3.0
30	0
31	0
32	0
33	0
34	0
35	0
36	3.0
37	0
38	0
39	2.8
40	1.0
41	0
42	3.0
43	3.0
44	0
45	2.8
46	0
47	2.5
48	2.5
Q8001	
E	0
C	0.1
B	3.1

MODE PIN NO.	CAMERA
Q8002	
E	0
C	0.1
B	1.9
Q8003	
E	12.0
C	11.9
B	11.2
Q8004	
E	3.2
C	3.1
B	2.4
Q8005	
E	7.3
C	11.9
B	7.9
Q8006	
E	0
C	7.9
B	0.5
Q8007	
E	0
C	0.1
B	1.9
Q8008	
E	4.9
C	4.9
B	4.2
Q8009	
E	0
C	0
B	0.6
Q8010	
E	3.0
C	3.0
B	0
Q8011	
E	-14.6
C	-14.6
B	3.0
Q8012	
E	1.4
C	0
B	0.8
Q8013	
1	0.7
2	1.2
3	11.9
4	1.2
5	1.7
6	11.9
Q8014	
E	0.8
C	1.8
B	1.4

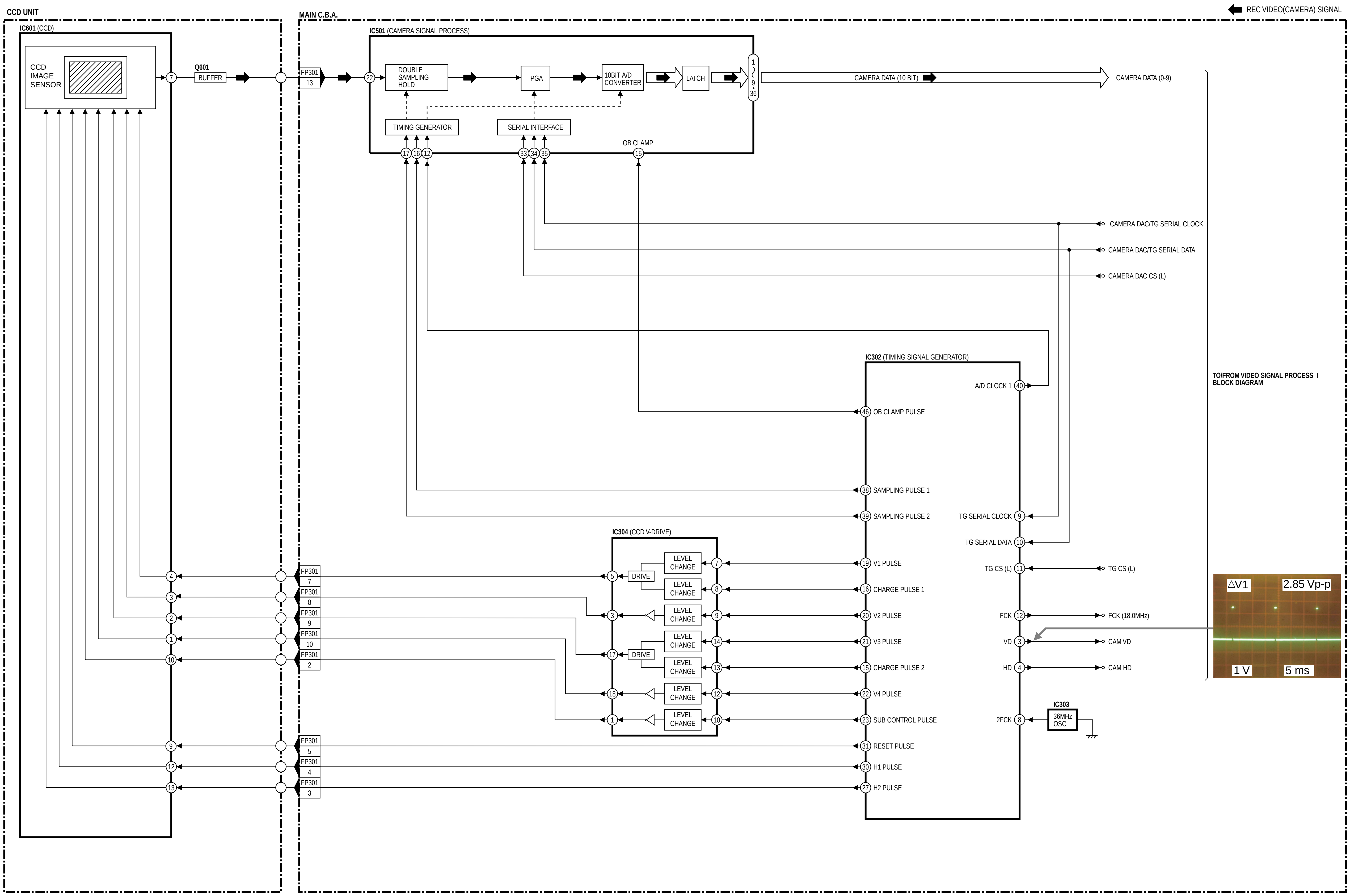
MODE PIN NO.	CAMERA
Q8015	
1	1.7
2	1.3
3	-14.7
4	1.2
5	0.7
6	-14.7
Q8016	
E	0.7
C	1.8
B	1.4
Q8018	
E	0.7
C	1.8
B	1.4
Q8020	
E	0.7
C	1.8
B	1.4
Q8022	
E	4.9
C	4.9
B	0.1
Q8023	
E	0.1
C	0.1
B	1.9

JACK C.B.A.

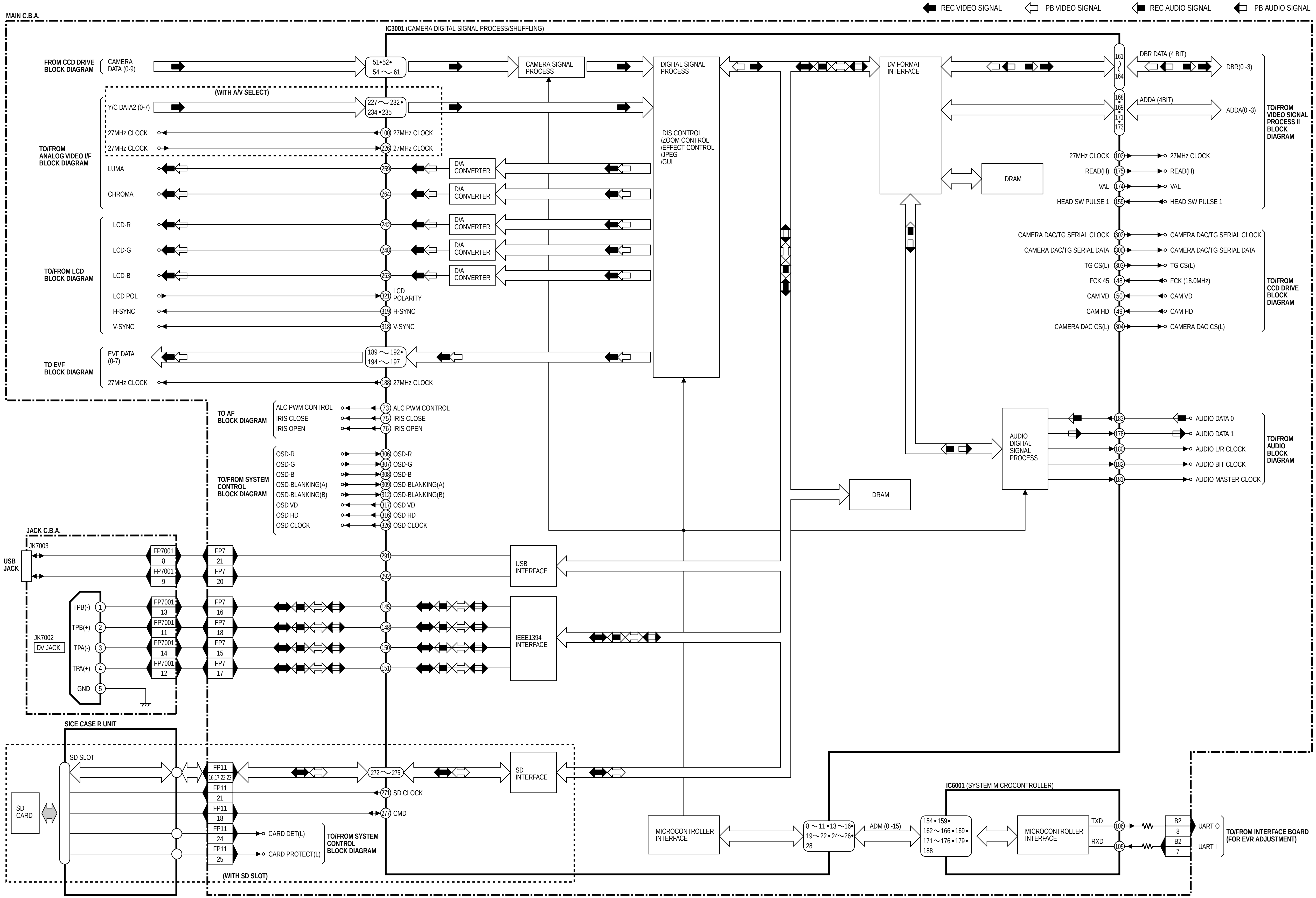
MODE PIN NO.	CAMERA
Q4001	
E	4.3
C	5.0
B	5.0
Q4002	
E	4.3
C	2.3
B	3.7
Q4003	
E	0.5
C	3.7
B	1.0
Q4004	
E	4.3
C	2.3
B	3.7
Q4005	
E	0.5
C	3.7
B	1.0

VOLTAGE CHART
PV-GS9PL/PV-GS12PL/PV-GS15PL

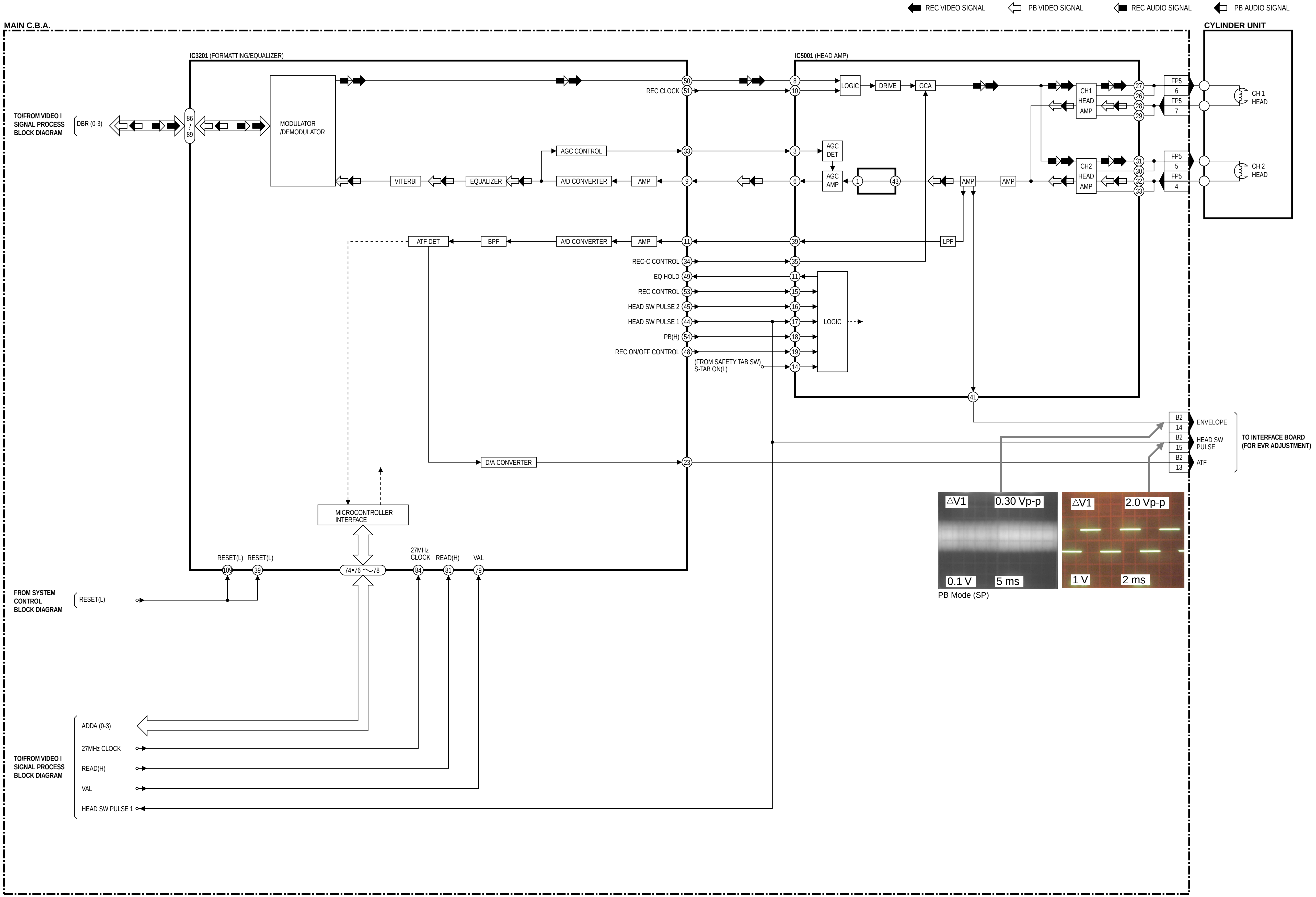
CCD DRIVE BLOCK DIAGRAM


REC VIDEO(CAMERA) SIGNAL
CCD UNIT
IC601 (CCD)
CCD IMAGE SENSOR
Q601
BUFFER
MAIN C.B.A.
FP301
IC501 (CAMERA SIGNAL PROCESS)
DOUBLE SAMPLING HOLD
PGA
10BIT A/D CONVERTER
LATCH
1 ~ 9, 36
CAMERA DATA (10 BIT)
CAMERA DATA (0-9)
TIMING GENERATOR
SERIAL INTERFACE
OB CLAMP
CAMERA DAC/TG SERIAL CLOCK
CAMERA DAC/TG SERIAL DATA
CAMERA DAC CS (L)
TO/FROM VIDEO SIGNAL PROCESS I BLOCK DIAGRAM
IC302 (TIMING SIGNAL GENERATOR)
A/D CLOCK 1
OB CLAMP PULSE
SAMPLING PULSE 1
SAMPLING PULSE 2
TG SERIAL CLOCK
TG SERIAL DATA
TG CS (L)
V1 PULSE
CHARGE PULSE 1
V2 PULSE
V3 PULSE
CHARGE PULSE 2
V4 PULSE
SUB CONTROL PULSE
RESET PULSE
H1 PULSE
H2 PULSE
FCK
FCK (18.0MHz)
VD
CAM VD
HD
CAM HD
2FCK
IC303
36MHz OSC
IC304 (CCD V-DRIVE)
LEVEL CHANGE
DRIVE
△V1
2.85 Vp-p
1 V
5 ms

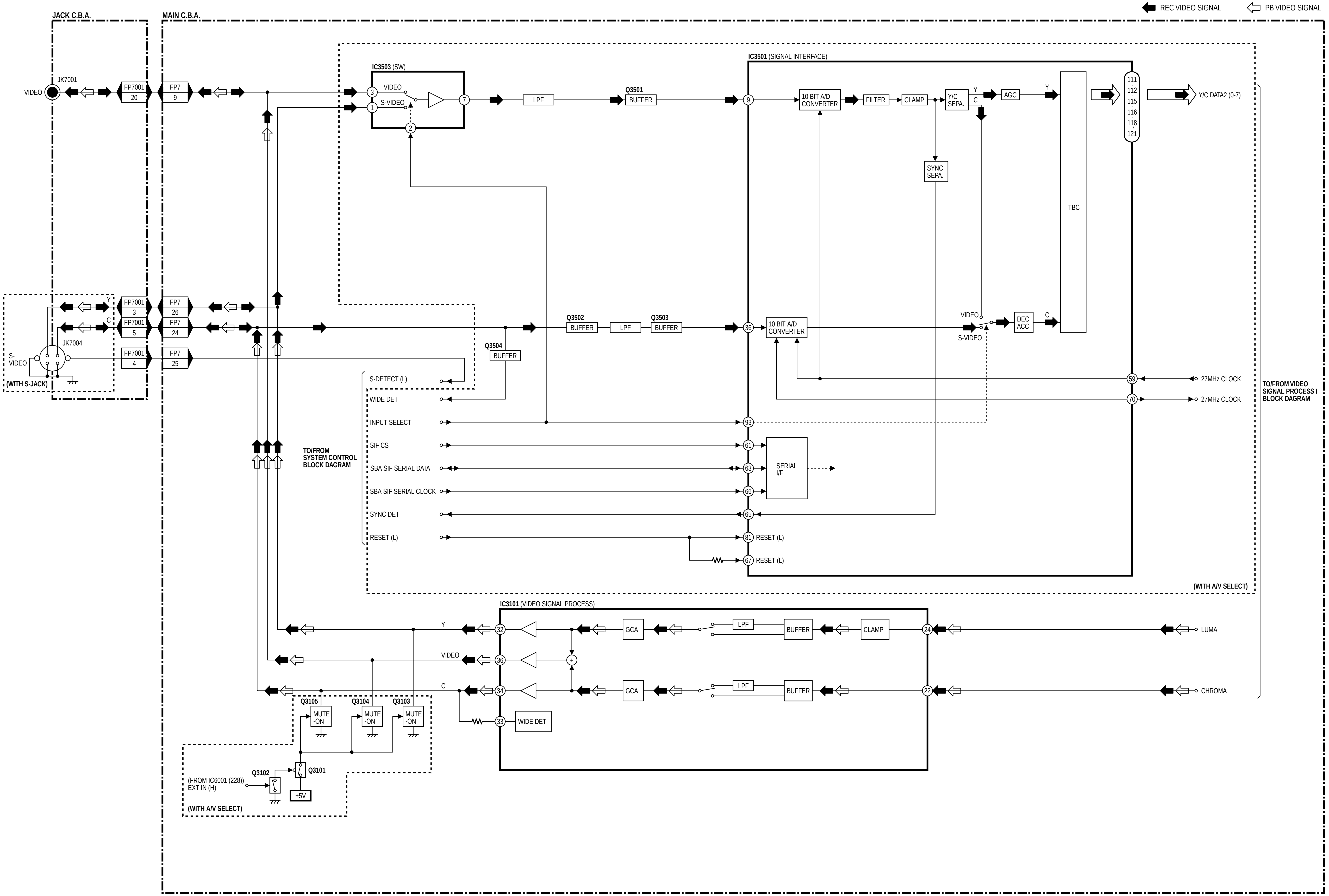
VIDEO SIGNAL PROCESS I BLOCK DIAGRAM


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
MAIN C.B.A.
IC3001 (CAMERA DIGITAL SIGNAL PROCESS/SHUFFLING)
FROM CCD DRIVE BLOCK DIAGRAM
CAMERA DATA (0-9)
51•52• 54～61
CAMERA SIGNAL PROCESS
DIGITAL SIGNAL PROCESS
DV FORMAT INTERFACE
161～164
DBR DATA (4 BIT)
DBR(0 -3)
(WITH A/V SELECT)
Y/C DATA2 (0-7)
227～232• 234•235
168 169 171 173
ADDA (4BIT)
ADDA(0 -3)
TO/FROM VIDEO SIGNAL PROCESS II BLOCK DIAGRAM
27MHz CLOCK
100
226
DIS CONTROL /ZOOM CONTROL /EFFECT CONTROL /JPEG /GUI
TO/FROM ANALOG VIDEO I/F BLOCK DIAGRAM
LUMA
259
D/A CONVERTER
CHROMA
264
102
READ(H)
175
VAL
174
HEAD SW PULSE 1
159
DRAM
LCD-R
242
LCD-G
248
LCD-B
253
TO/FROM LCD BLOCK DIAGRAM
LCD POL
321
LCD POLARITY
H-SYNC
319
V-SYNC
318
CAMERA DAC/TG SERIAL CLOCK
302
CAMERA DAC/TG SERIAL DATA
300
TG CS(L)
303
FCK 45
48
FCK (18.0MHz)
CAM VD
50
CAM HD
49
CAMERA DAC CS(L)
304
TO/FROM CCD DRIVE BLOCK DIAGRAM
TO EVF BLOCK DIAGRAM
EVF DATA (0-7)
189～192• 194～197
188
TO AF BLOCK DIAGRAM
ALC PWM CONTROL
73
IRIS CLOSE
75
IRIS OPEN
76
AUDIO DIGITAL SIGNAL PROCESS
AUDIO DATA 0
183
AUDIO DATA 1
178
AUDIO L/R CLOCK
180
AUDIO BIT CLOCK
182
AUDIO MASTER CLOCK
181
TO/FROM AUDIO BLOCK DIAGRAM
TO/FROM SYSTEM CONTROL BLOCK DIAGRAM
OSD-R
306
OSD-G
307
OSD-B
308
OSD-BLANKING(A)
309
OSD-BLANKING(B)
312
OSD VD
317
OSD HD
316
OSD CLOCK
326
DRAM
JACK C.B.A.
JK7003
USB JACK
FP7001
8
9
FP7
21
20
291
292
USB INTERFACE
JK7002
DV JACK
TPB(-)
1
TPB(+)
2
TPA(-)
3
TPA(+)
4
GND
5
13
11
14
12
16
18
15
17
145
148
150
151
IEEE1394 INTERFACE
SICE CASE R UNIT
SD SLOT
SD CARD
FP11
16,17,22,23
21
18
24
25
272～275
SD INTERFACE
271
SD CLOCK
277
CMD
CARD DET(L)
CARD PROTECT(L)
TO/FROM SYSTEM CONTROL BLOCK DIAGRAM
(WITH SD SLOT)
MICROCONTROLLER INTERFACE
8～11•13～16• 19～22•24～26• 28
ADM (0 -15)
IC6001 (SYSTEM MICROCONTROLLER)
154•159• 162～166•169• 171～176•179• 188
MICROCONTROLLER INTERFACE
TXD
RXD
106
105
B2
8
7
UART O
UART I
TO/FROM INTERFACE BOARD (FOR EVR ADJUSTMENT)

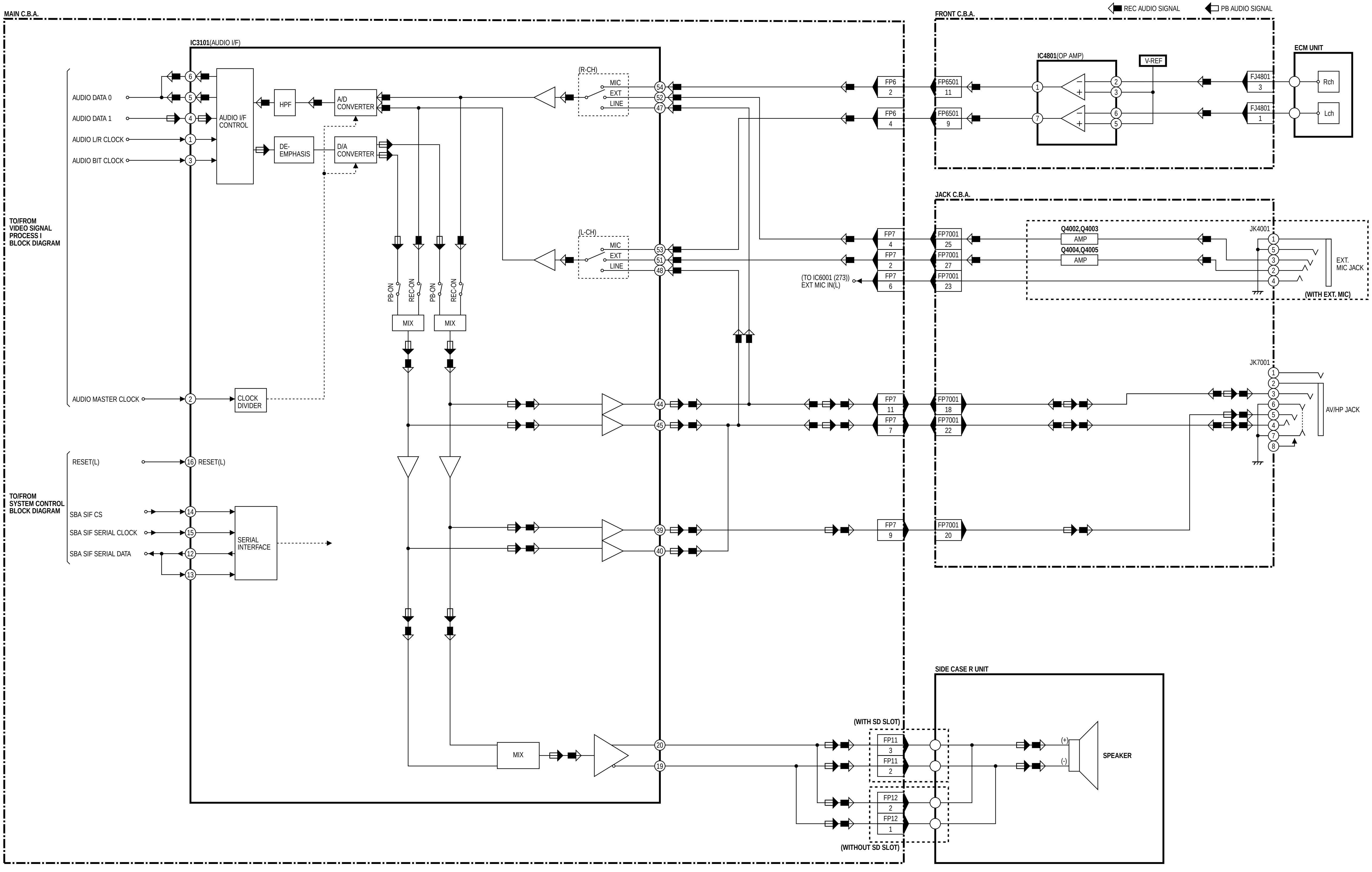
VIDEO SIGNAL PROCESS II BLOCK DIAGRAM


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
MAIN C.B.A.
CYLINDER UNIT
IC3201 (FORMATTING/EQUALIZER)
IC5001 (HEAD AMP)
TO/FROM VIDEO I SIGNAL PROCESS BLOCK DIAGRAM
DBR (0-3)
86 ~ 89
MODULATOR /DEMODULATOR
REC CLOCK
50
51
AGC CONTROL
33
VITERBI
EQUALIZER
A/D CONVERTER
AMP
9
ATF DET
BPF
A/D CONVERTER
AMP
11
REC-C CONTROL
34
EQ HOLD
49
REC CONTROL
53
HEAD SW PULSE 2
45
HEAD SW PULSE 1
44
PB(H)
54
REC ON/OFF CONTROL
48
(FROM SAFETY TAB SW) S-TAB ON(L)
D/A CONVERTER
23
MICROCONTROLLER INTERFACE
RESET(L)
RESET(L)
109
39
74•76 ~ 78
27MHz CLOCK
84
READ(H)
81
VAL
79
8
10
LOGIC
DRIVE
GCA
3
AGC DET
AGC AMP
6
1
43
AMP
AMP
39
LPF
35
11
15
16
17
18
19
14
LOGIC
41
CH1 HEAD AMP
CH2 HEAD AMP
27
26
28
29
31
30
32
33
FP5 6
FP5 7
FP5 5
FP5 4
CH 1 HEAD
CH 2 HEAD
B2 14
B2 15
B2 13
ENVELOPE
HEAD SW PULSE
ATF
TO INTERFACE BOARD (FOR EVR ADJUSTMENT)
△V1
0.30 Vp-p
0.1 V
5 ms
△V1
2.0 Vp-p
1 V
2 ms
PB Mode (SP)
FROM SYSTEM CONTROL BLOCK DIAGRAM
RESET(L)
TO/FROM VIDEO I SIGNAL PROCESS BLOCK DIAGRAM
ADDA (0-3)
27MHz CLOCK
READ(H)
VAL
HEAD SW PULSE 1

ANALOG VIDEO I/F BLOCK DIAGRAM

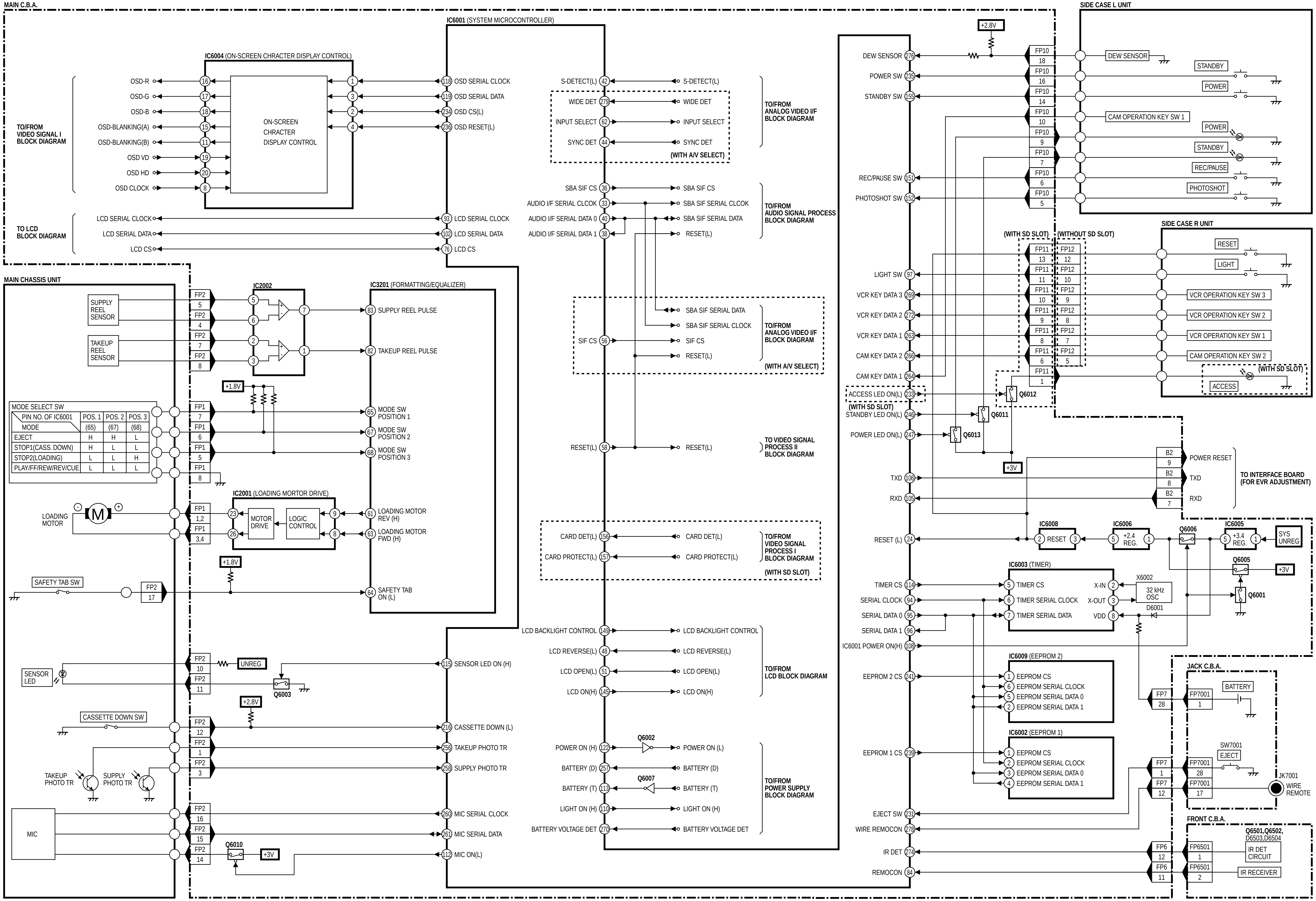

REC VIDEO SIGNAL
PB VIDEO SIGNAL
JACK C.B.A.
MAIN C.B.A.
VIDEO
JK7001
FP7001
20
FP7
9
IC3503 (SW)
VIDEO
S-VIDEO
3
1
2
7
LPF
Q3501
BUFFER
IC3501 (SIGNAL INTERFACE)
9
10 BIT A/D
CONVERTER
FILTER
CLAMP
Y/C
SEPA.
Y
C
AGC
Y
TBC
111
112
115
116
118
121
Y/C DATA2 (0-7)
SYNC
SEPA.
Y
C
FP7001
3
FP7001
5
FP7001
4
FP7
26
FP7
24
FP7
25
JK7004
S-
VIDEO
(WITH S-JACK)
Q3502
BUFFER
LPF
Q3503
BUFFER
Q3504
BUFFER
36
10 BIT A/D
CONVERTER
VIDEO
S-VIDEO
DEC
ACC
C
S-DETECT (L)
WIDE DET
INPUT SELECT
SIF CS
SBA SIF SERIAL DATA
SBA SIF SERIAL CLOCK
SYNC DET
RESET (L)
TO/FROM
SYSTEM CONTROL
BLOCK DIAGRAM
59
70
27MHz CLOCK
27MHz CLOCK
TO/FROM VIDEO
SIGNAL PROCESS I
BLOCK DAGRAM
93
61
63
66
65
81
67
SERIAL
I/F
RESET (L)
RESET (L)
(WITH A/V SELECT)
IC3101 (VIDEO SIGNAL PROCESS)
Y
32
VIDEO
36
C
34
33
WIDE DET
GCA
LPF
BUFFER
CLAMP
GCA
LPF
BUFFER
24
22
LUMA
CHROMA
Q3105
MUTE
-ON
Q3104
MUTE
-ON
Q3103
MUTE
-ON
Q3102
Q3101
(FROM IC6001 (228))
EXT IN (H)
+5V
(WITH A/V SELECT)

AUDIO SIGNAL PROCESS BLOCK DIAGRAM


REC AUDIO SIGNAL
PB AUDIO SIGNAL
MAIN C.B.A.
IC3101(AUDIO I/F)
AUDIO DATA 0
AUDIO DATA 1
AUDIO L/R CLOCK
AUDIO BIT CLOCK
AUDIO I/F CONTROL
HPF
A/D CONVERTER
DE-EMPHASIS
D/A CONVERTER
(R-CH)
MIC
EXT
LINE
(L-CH)
MIC
EXT
LINE
TO/FROM VIDEO SIGNAL PROCESS I BLOCK DIAGRAM
PB-ON
REC-ON
PB-ON
REC-ON
MIX
MIX
AUDIO MASTER CLOCK
CLOCK DIVIDER
RESET(L)
RESET(L)
TO/FROM SYSTEM CONTROL BLOCK DIAGRAM
SBA SIF CS
SBA SIF SERIAL CLOCK
SBA SIF SERIAL DATA
SERIAL INTERFACE
MIX
FRONT C.B.A.
IC4801(OP AMP)
V-REF
ECM UNIT
FJ4801
FJ4801
Rch
Lch
FP6
FP6501
JACK C.B.A.
FP7
FP7001
Q4002,Q4003
AMP
Q4004,Q4005
AMP
JK4001
EXT. MIC JACK
(WITH EXT. MIC)
(TO IC6001 (273))
EXT MIC IN(L)
JK7001
AV/HP JACK
SIDE CASE R UNIT
(WITH SD SLOT)
FP11
FP12
(WITHOUT SD SLOT)
(+)
(-)
SPEAKER

AUDIO SIGNAL PROCESS BLOCK DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

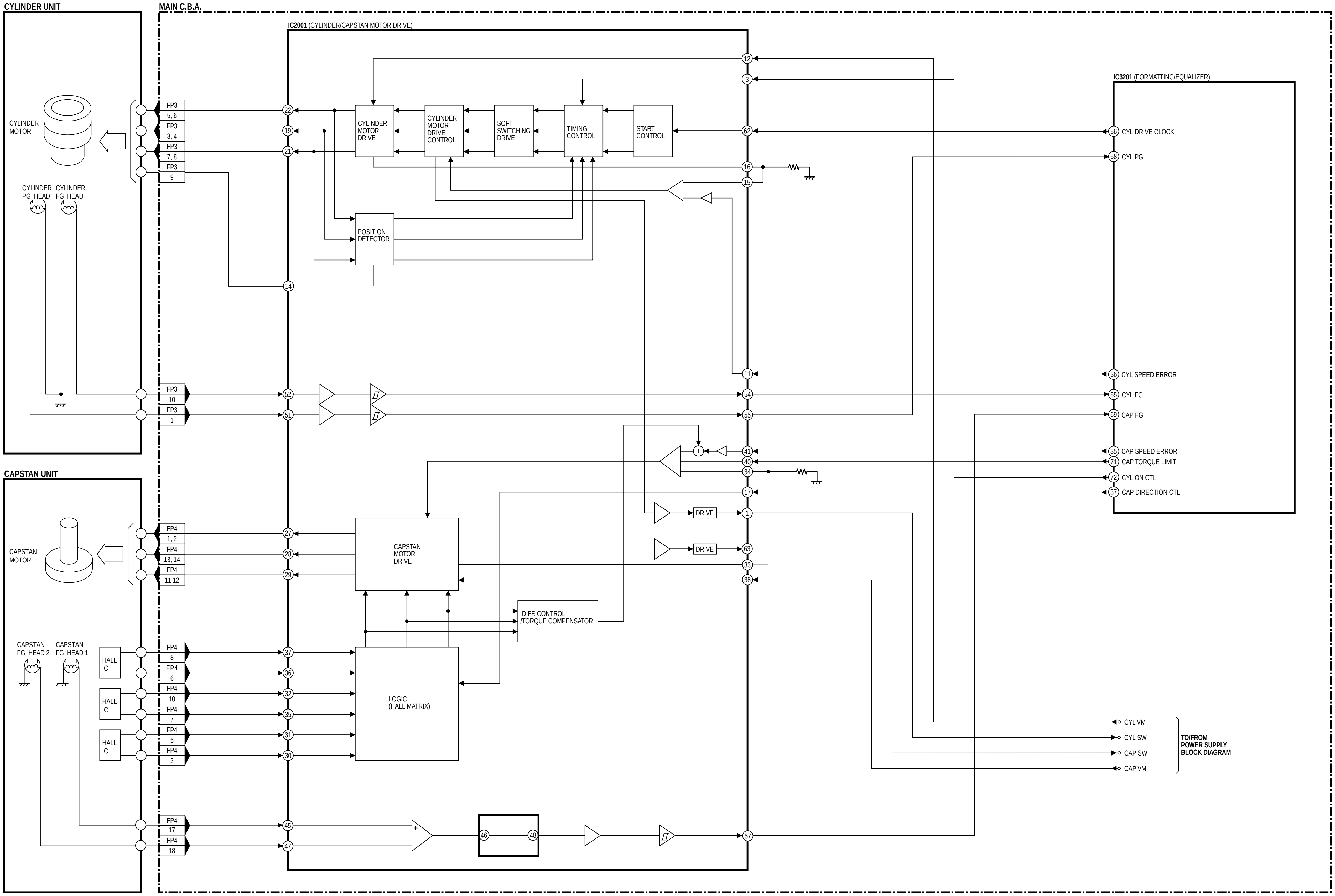
SYSTEM CONTROL BLOCK DIAGRAM


MAIN C.B.A.
IC6001 (SYSTEM MICROCONTROLLER)
IC6004 (ON-SCREEN CHRACTER DISPLAY CONTROL)
ON-SCREEN CHARACTER DISPLAY CONTROL
OSD-R
OSD-G
OSD-B
OSD-BLANKING(A)
OSD-BLANKING(B)
OSD VD
OSD HD
OSD CLOCK
TO/FROM VIDEO SIGNAL I BLOCK DIAGRAM
OSD SERIAL CLOCK
OSD SERIAL DATA
OSD CS(L)
OSD RESET(L)
LCD SERIAL CLOCK
LCD SERIAL DATA
LCD CS
TO LCD BLOCK DIAGRAM
S-DETECT(L)
WIDE DET
INPUT SELECT
SYNC DET
(WITH A/V SELECT)
TO/FROM ANALOG VIDEO I/F BLOCK DIAGRAM
SBA SIF CS
AUDIO I/F SERIAL CLCOK
AUDIO I/F SERIAL DATA 0
AUDIO I/F SERIAL DATA 1
SBA SIF SERIAL CLCOK
SBA SIF SERIAL DATA
RESET(L)
TO/FROM AUDIO SIGNAL PROCESS BLOCK DIAGRAM
SBA SIF SERIAL CLOCK
SIF CS
TO/FROM ANALOG VIDEO I/F BLOCK DIAGRAM
(WITH A/V SELECT)
TO VIDEO SIGNAL PROCESS II BLOCK DIAGRAM
CARD DET(L)
CARD PROTECT(L)
TO/FROM VIDEO SIGNAL PROCESS I BLOCK DIAGRAM
(WITH SD SLOT)
LCD BACKLIGHT CONTROL
LCD REVERSE(L)
LCD OPEN(L)
LCD ON(H)
TO/FROM LCD BLOCK DIAGRAM
POWER ON (H)
Q6002
POWER ON (L)
BATTERY (D)
BATTERY (T)
Q6007
LIGHT ON (H)
BATTERY VOLTAGE DET
TO/FROM POWER SUPPLY BLOCK DIAGRAM
MAIN CHASSIS UNIT
SUPPLY REEL SENSOR
TAKEUP REEL SENSOR
IC2002
IC3201 (FORMATTING/EQUALIZER)
SUPPLY REEL PULSE
TAKEUP REEL PULSE
+1.8V
MODE SELECT SW
MODE SW POSITION 1
MODE SW POSITION 2
MODE SW POSITION 3
IC2001 (LOADING MORTOR DRIVE)
MOTOR DRIVE
LOGIC CONTROL
LOADING MOTOR
LOADING MOTOR REV (H)
LOADING MOTOR FWD (H)
SAFETY TAB SW
SAFETY TAB ON (L)
SENSOR LED
UNREG
Q6003
SENSOR LED ON (H)
+2.8V
CASSETTE DOWN SW
CASSETTE DOWN (L)
TAKEUP PHOTO TR
SUPPLY PHOTO TR
MIC
MIC SERIAL CLOCK
MIC SERIAL DATA
Q6010
+3V
MIC ON(L)
FP1
FP2
SIDE CASE L UNIT
DEW SENSOR
POWER SW
STANDBY SW
STANDBY
POWER
CAM OPERATION KEY SW 1
REC/PAUSE
PHOTOSHOT
REC/PAUSE SW
PHOTOSHOT SW
FP10
SIDE CASE R UNIT
(WITH SD SLOT)
(WITHOUT SD SLOT)
FP11
FP12
RESET
LIGHT
LIGHT SW
VCR KEY DATA 3
VCR KEY DATA 2
VCR KEY DATA 1
CAM KEY DATA 2
CAM KEY DATA 1
VCR OPERATION KEY SW 3
VCR OPERATION KEY SW 2
VCR OPERATION KEY SW 1
CAM OPERATION KEY SW 2
ACCESS
ACCESS LED ON(L)
STANDBY LED ON(L)
POWER LED ON(L)
Q6012
Q6011
Q6013
B2
POWER RESET
TXD
RXD
TO INTERFACE BOARD (FOR EVR ADJUSTMENT)
RESET (L)
IC6008
IC6006
+2.4 REG.
Q6006
IC6005
+3.4 REG.
SYS UNREG
Q6005
Q6001
IC6003 (TIMER)
TIMER CS
TIMER SERIAL CLOCK
TIMER SERIAL DATA
X-IN
X-OUT
VDD
X6002
32 kHz OSC
D6001
SERIAL CLOCK
SERIAL DATA 0
SERIAL DATA 1
IC6001 POWER ON(H)
IC6009 (EEPROM 2)
EEPROM 2 CS
EEPROM CS
EEPROM SERIAL CLOCK
EEPROM SERIAL DATA 0
EEPROM SERIAL DATA 1
IC6002 (EEPROM 1)
EEPROM 1 CS
EJECT SW
WIRE REMOCON
IR DET
REMOCON
JACK C.B.A.
BATTERY
FP7
FP7001
SW7001
EJECT
JK7001
WIRE REMOTE
FRONT C.B.A.
FP6
FP6501
Q6501,Q6502, D6503,D6504
IR DET CIRCUIT
IR RECEIVER

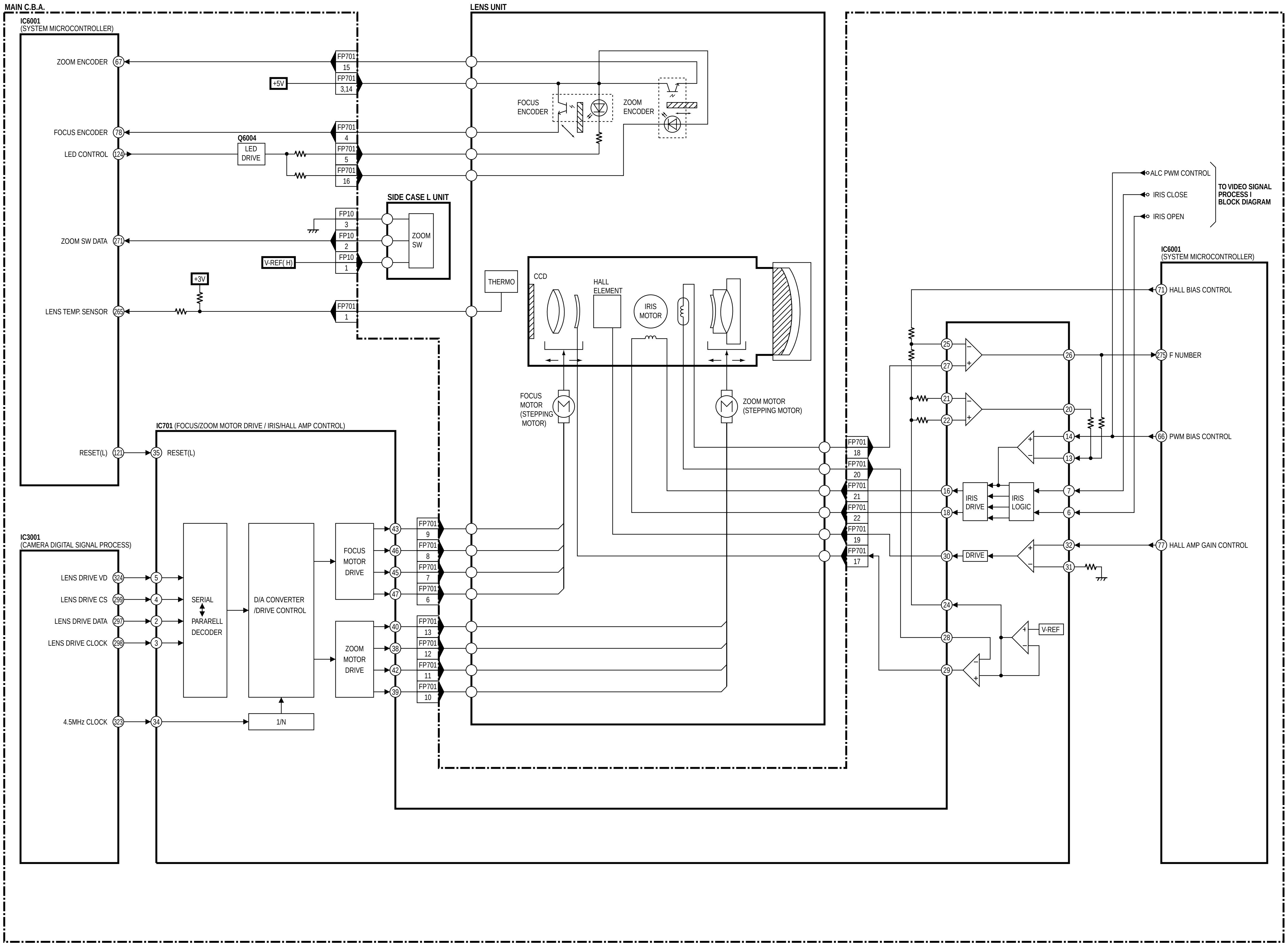
MODE SELECT SW

PIN NO. OF IC6001 / MODE	POS. 1 (65)	POS. 2 (67)	POS. 3 (68)
EJECT	H	H	L
STOP1(CASS. DOWN)	H	L	L
STOP2(LOADING)	L	L	H
PLAY/FF/REW/REV/CUE	L	L	L

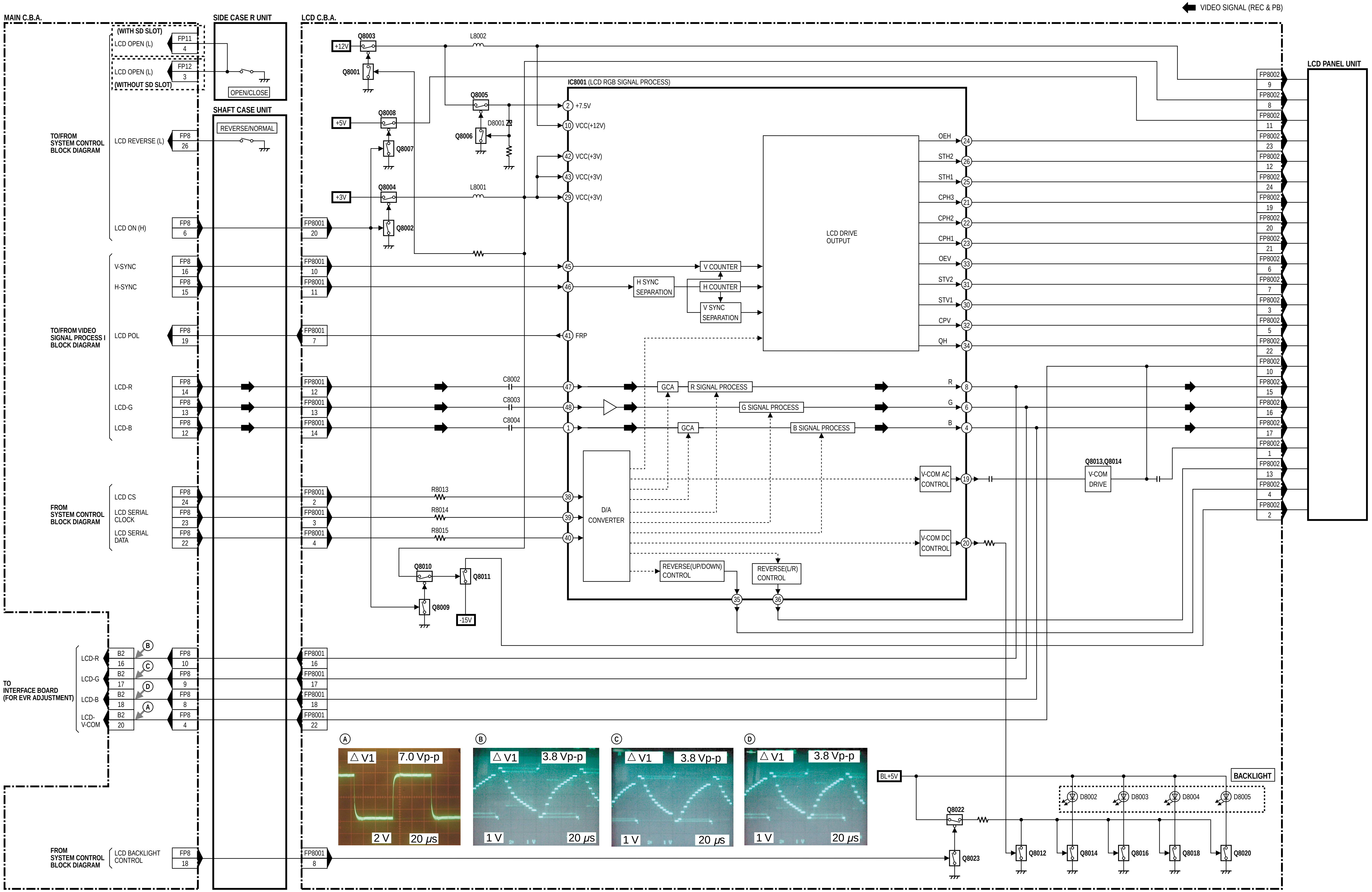
SERVO BLOCK DIAGRAM


CYLINDER UNIT
MAIN C.B.A.
IC2001 (CYLINDER/CAPSTAN MOTOR DRIVE)
IC3201 (FORMATTING/EQUALIZER)
CYLINDER MOTOR
CYLINDER PG HEAD
CYLINDER FG HEAD
FP3 5, 6
FP3 3, 4
FP3 7, 8
FP3 9
FP3 10
FP3 1
CYLINDER MOTOR DRIVE
CYLINDER MOTOR DRIVE CONTROL
SOFT SWITCHING DRIVE
TIMING CONTROL
START CONTROL
POSITION DETECTOR
22
19
21
14
12
3
62
16
15
11
52
51
54
55
41
40
34
17
1
63
33
38
56 CYL DRIVE CLOCK
58 CYL PG
36 CYL SPEED ERROR
55 CYL FG
69 CAP FG
35 CAP SPEED ERROR
71 CAP TORQUE LIMIT
72 CYL ON CTL
37 CAP DIRECTION CTL
+
DRIVE
DRIVE
CAPSTAN UNIT
CAPSTAN MOTOR
FP4 1, 2
FP4 13, 14
FP4 11,12
27
28
29
CAPSTAN MOTOR DRIVE
DIFF. CONTROL /TORQUE COMPENSATOR
CAPSTAN FG HEAD 2
CAPSTAN FG HEAD 1
HALL IC
HALL IC
HALL IC
FP4 8
FP4 6
FP4 10
FP4 7
FP4 5
FP4 3
37
36
32
35
31
30
LOGIC (HALL MATRIX)
FP4 17
FP4 18
45
47
+
−
46
48
57
CYL VM
CYL SW
CAP SW
CAP VM
TO/FROM POWER SUPPLY BLOCK DIAGRAM

AF BLOCK DIAGRAM

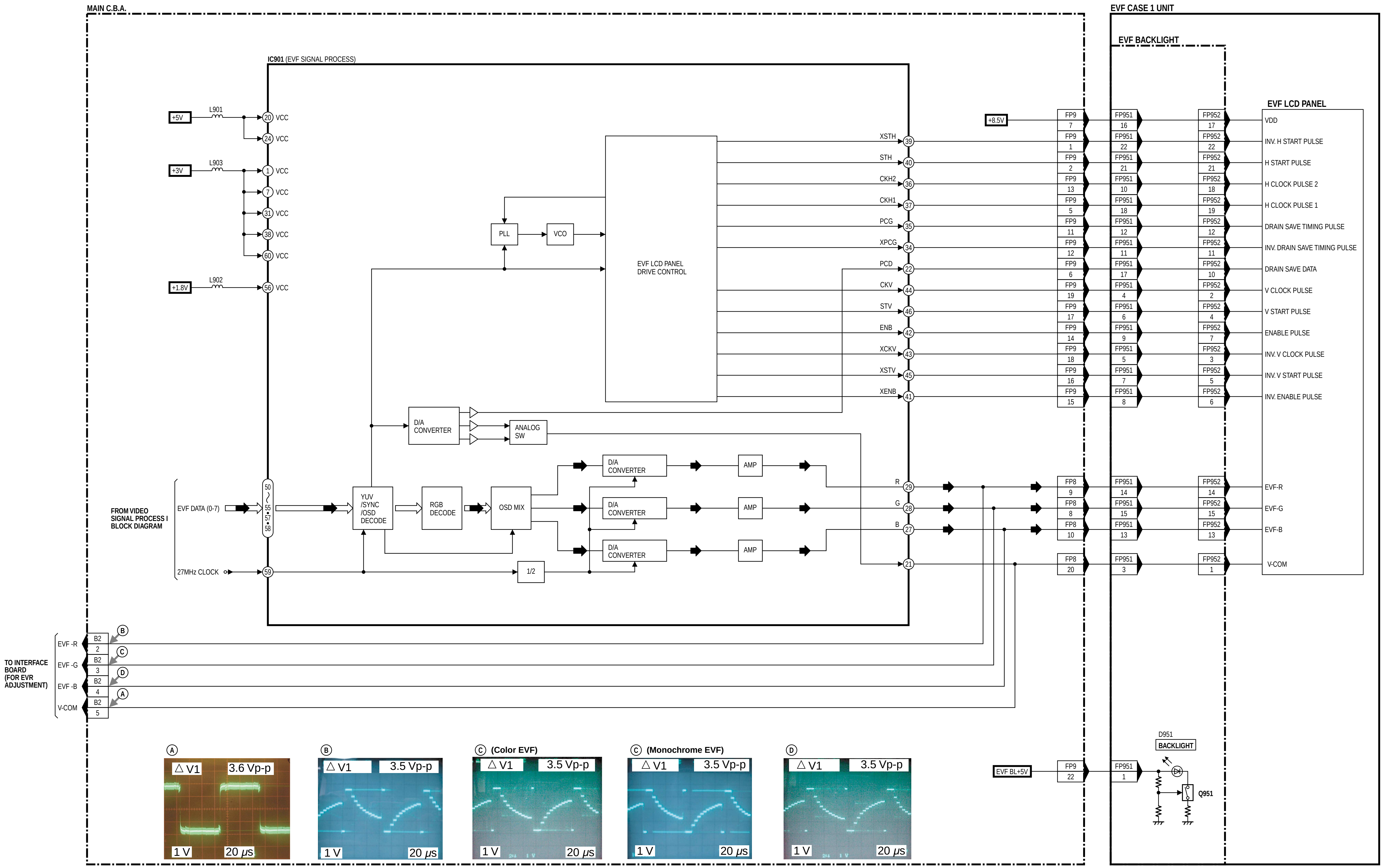

MAIN C.B.A.
LENS UNIT
IC6001
(SYSTEM MICROCONTROLLER)
ZOOM ENCODER 67
FOCUS ENCODER 78
LED CONTROL 124
ZOOM SW DATA 271
LENS TEMP. SENSOR 265
RESET(L) 121
+5V
+3V
V-REF(H)
Q6004
LED DRIVE
FP701 15
FP701 3,14
FP701 4
FP701 5
FP701 16
FP10 3
FP10 2
FP10 1
FP701 1
SIDE CASE L UNIT
ZOOM SW
FOCUS ENCODER
ZOOM ENCODER
THERMO
CCD
HALL ELEMENT
IRIS MOTOR
FOCUS MOTOR (STEPPING MOTOR)
ZOOM MOTOR (STEPPING MOTOR)
IC701 (FOCUS/ZOOM MOTOR DRIVE / IRIS/HALL AMP CONTROL)
35 RESET(L)
IC3001
(CAMERA DIGITAL SIGNAL PROCESS)
LENS DRIVE VD 324 5
LENS DRIVE CS 299 4
LENS DRIVE DATA 297 2
LENS DRIVE CLOCK 298 3
4.5MHz CLOCK 323 34
SERIAL PARARELL DECODER
D/A CONVERTER /DRIVE CONTROL
1/N
FOCUS MOTOR DRIVE
ZOOM MOTOR DRIVE
43 FP701 9
46 FP701 8
45 FP701 7
47 FP701 6
40 FP701 13
38 FP701 12
42 FP701 11
39 FP701 10
FP701 18
FP701 20
FP701 21
FP701 22
FP701 19
FP701 17
IRIS DRIVE
IRIS LOGIC
DRIVE
V-REF
25 27 21 22 24 28 29 16 18 30
26 20 14 13 7 6 32 31
ALC PWM CONTROL
IRIS CLOSE
IRIS OPEN
TO VIDEO SIGNAL PROCESS I BLOCK DIAGRAM
IC6001
(SYSTEM MICROCONTROLLER)
71 HALL BIAS CONTROL
275 F NUMBER
66 PWM BIAS CONTROL
77 HALL AMP GAIN CONTROL

LCD DRIVE BLOCK DIAGRAM

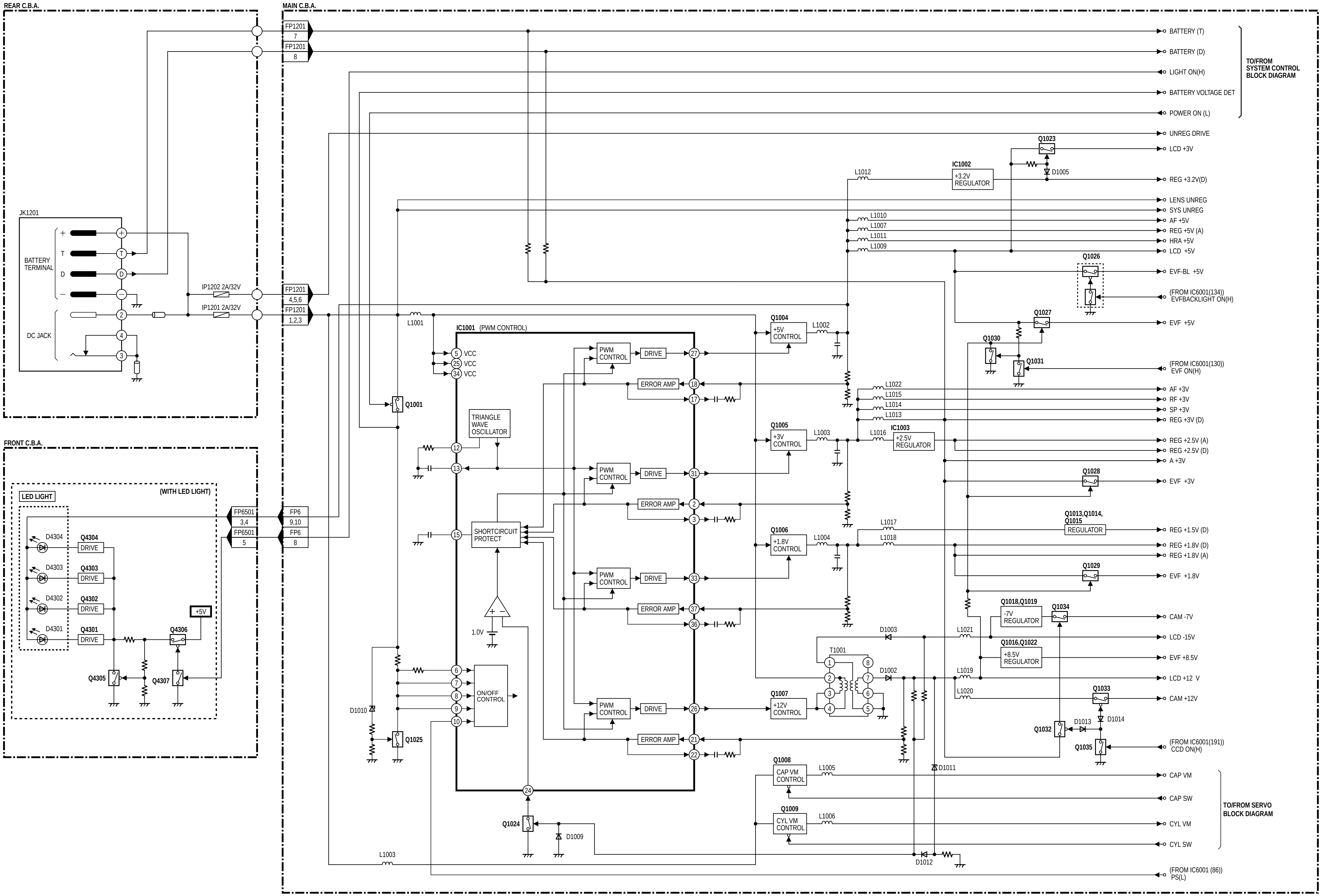

VIDEO SIGNAL (REC & PB)
MAIN C.B.A.
SIDE CASE R UNIT
LCD C.B.A.
LCD PANEL UNIT
SHAFT CASE UNIT
(WITH SD SLOT)
LCD OPEN (L)
FP11 4
LCD OPEN (L)
FP12 3
(WITHOUT SD SLOT)
OPEN/CLOSE
REVERSE/NORMAL
TO/FROM SYSTEM CONTROL BLOCK DIAGRAM
LCD REVERSE (L)
FP8 26
LCD ON (H)
FP8 6
FP8001 20
V-SYNC
FP8 16
FP8001 10
H-SYNC
FP8 15
FP8001 11
TO/FROM VIDEO SIGNAL PROCESS I BLOCK DIAGRAM
LCD POL
FP8 19
FP8001 7
LCD-R
FP8 14
FP8001 12
LCD-G
FP8 13
FP8001 13
LCD-B
FP8 12
FP8001 14
FROM SYSTEM CONTROL BLOCK DIAGRAM
LCD CS
FP8 24
FP8001 2
LCD SERIAL CLOCK
FP8 23
FP8001 3
LCD SERIAL DATA
FP8 22
FP8001 4
+12V
Q8003
Q8001
L8002
+5V
Q8008
Q8007
Q8005
Q8006
D8001
+3V
Q8004
L8001
Q8002
IC8001 (LCD RGB SIGNAL PROCESS)
2 +7.5V
10 VCC(+12V)
42 VCC(+3V)
43 VCC(+3V)
29 VCC(+3V)
45
46
41 FRP
47
48
1
38
39
40
C8002
C8003
C8004
R8013
R8014
R8015
V COUNTER
H SYNC SEPARATION
H COUNTER
V SYNC SEPARATION
LCD DRIVE OUTPUT
GCA
R SIGNAL PROCESS
G SIGNAL PROCESS
GCA
B SIGNAL PROCESS
D/A CONVERTER
V-COM AC CONTROL
V-COM DC CONTROL
REVERSE(UP/DOWN) CONTROL
REVERSE(L/R) CONTROL
35
36
OEH 24
STH2 26
STH1 25
CPH3 21
CPH2 22
CPH1 23
OEV 33
STV2 31
STV1 30
CPV 32
QH 34
R 8
G 6
B 4
19
20
Q8013,Q8014
V-COM DRIVE
FP8002 9
FP8002 8
FP8002 11
FP8002 23
FP8002 12
FP8002 24
FP8002 19
FP8002 20
FP8002 21
FP8002 6
FP8002 7
FP8002 3
FP8002 5
FP8002 22
FP8002 10
FP8002 15
FP8002 16
FP8002 17
FP8002 1
FP8002 13
FP8002 4
FP8002 2
Q8010
Q8011
Q8009
-15V
TO INTERFACE BOARD (FOR EVR ADJUSTMENT)
LCD-R
B2 16
FP8 10
FP8001 16
LCD-G
B2 17
FP8 9
FP8001 17
LCD-B
B2 18
FP8 8
FP8001 18
LCD-V-COM
B2 20
FP8 4
FP8001 22
Ⓐ Ⓑ Ⓒ Ⓓ
Ⓐ △V1 7.0 Vp-p 2 V 20 μs
Ⓑ △V1 3.8 Vp-p 1 V 20 μs
Ⓒ △V1 3.8 Vp-p 1 V 20 μs
Ⓓ △V1 3.8 Vp-p 1 V 20 μs
BL+5V
BACKLIGHT
D8002
D8003
D8004
D8005
Q8022
Q8023
Q8012
Q8014
Q8016
Q8018
Q8020
FROM SYSTEM CONTROL BLOCK DIAGRAM
LCD BACKLIGHT CONTROL
FP8 18
FP8001 8

LCD DRIVE BLOCK DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

EVF BLOCK DIAGRAM


MAIN C.B.A.
IC901 (EVF SIGNAL PROCESS)
+5V
L901
+3V
L903
+1.8V
L902
20 VCC
24 VCC
1 VCC
7 VCC
31 VCC
38 VCC
60 VCC
56 VCC
PLL
VCO
EVF LCD PANEL DRIVE CONTROL
XSTH
STH
CKH2
CKH1
PCG
XPCG
PCD
CKV
STV
ENB
XCKV
XSTV
XENB
D/A CONVERTER
ANALOG SW
YUV /SYNC /OSD DECODE
RGB DECODE
OSD MIX
D/A CONVERTER
AMP
1/2
R
G
B
FROM VIDEO SIGNAL PROCESS I BLOCK DIAGRAM
EVF DATA (0-7)
27MHz CLOCK
50 ~ 55 57 58
59
TO INTERFACE BOARD (FOR EVR ADJUSTMENT)
EVF -R
EVF -G
EVF -B
V-COM
B2
+8.5V
FP9
FP8
EVF CASE 1 UNIT
EVF BACKLIGHT
FP951
FP952
EVF LCD PANEL
VDD
INV. H START PULSE
H START PULSE
H CLOCK PULSE 2
H CLOCK PULSE 1
DRAIN SAVE TIMING PULSE
INV. DRAIN SAVE TIMING PULSE
DRAIN SAVE DATA
V CLOCK PULSE
V START PULSE
ENABLE PULSE
INV. V CLOCK PULSE
INV. V START PULSE
INV. ENABLE PULSE
EVF-R
EVF-G
EVF-B
V-COM
EVF BL+5V
D951
BACKLIGHT
Q951
A
△V1 3.6 Vp-p
1 V 20 μs
B
△V1 3.5 Vp-p
1 V 20 μs
C (Color EVF)
△V1 3.5 Vp-p
1 V 20 μs
C (Monochrome EVF)
△V1 3.5 Vp-p
1 V 20 μs
D
△V1 3.5 Vp-p
1 V 20 μs

POWER SUPPLY BLOCK DIAGRAM



REAR C.B.A.
MAIN C.B.A.
FRONT C.B.A.
JK1201
BATTERY TERMINAL
DC JACK
+
T
D
−
2
4
3
IP1202 2A/32V
IP1201 2A/32V
FP1201 7
FP1201 8
FP1201 4,5,6
FP1201 1,2,3
FP6501 3,4
FP6501 5
FP6 9,10
FP6 8
LED LIGHT
(WITH LED LIGHT)
D4304
D4303
D4302
D4301
Q4304 DRIVE
Q4303 DRIVE
Q4302 DRIVE
Q4301 DRIVE
Q4306
+5V
Q4305
Q4307
L1001
L1003
Q1001
Q1025
Q1024
D1010
D1009
IC1001 (PWM CONTROL)
5 VCC
25 VCC
34 VCC
TRIANGLE WAVE OSCILLATOR
12
13
15
SHORTCIRCUIT PROTECT
1.0V
6
7
8
9
10
ON/OFF CONTROL
24
PWM CONTROL
DRIVE
ERROR AMP
27
18
17
31
2
3
33
37
36
26
21
22
Q1004 +5V CONTROL
L1002
Q1005 +3V CONTROL
L1003
L1016
IC1003 +2.5V REGULATOR
Q1006 +1.8V CONTROL
L1004
L1017
L1018
Q1007 +12V CONTROL
T1001
D1003
D1002
D1011
D1012
Q1008 CAP VM CONTROL
L1005
Q1009 CYL VM CONTROL
L1006
L1012
IC1002 +3.2V REGULATOR
Q1023
D1005
L1010
L1007
L1011
L1009
Q1026
Q1027
Q1030
Q1031
L1022
L1015
L1014
L1013
Q1028
Q1013,Q1014, Q1015 REGULATOR
Q1029
Q1018,Q1019 -7V REGULATOR
Q1034
L1021
Q1016,Q1022 +8.5V REGULATOR
L1019
L1020
Q1033
D1013
D1014
Q1032
Q1035
BATTERY (T)
BATTERY (D)
LIGHT ON(H)
BATTERY VOLTAGE DET
POWER ON (L)
TO/FROM SYSTEM CONTROL BLOCK DIAGRAM
UNREG DRIVE
LCD +3V
REG +3.2V(D)
LENS UNREG
SYS UNREG
AF +5V
REG +5V (A)
HRA +5V
LCD +5V
EVF-BL +5V
(FROM IC6001(134)) EVFBACKLIGHT ON(H)
EVF +5V
(FROM IC6001(130)) EVF ON(H)
AF +3V
RF +3V
SP +3V
REG +3V (D)
REG +2.5V (A)
REG +2.5V (D)
A +3V
EVF +3V
REG +1.5V (D)
REG +1.8V (D)
REG +1.8V (A)
EVF +1.8V
CAM -7V
LCD -15V
EVF +8.5V
LCD +12 V
CAM +12V
(FROM IC6001(191)) CCD ON(H)
CAP VM
CAP SW
CYL VM
CYL SW
TO/FROM SERVO BLOCK DIAGRAM
(FROM IC6001 (86)) PS(L)

MAIN C.B.A. LSEP8262B1 (PV-GS12PL) / LSEP8262A1 (PV-GS9PL) / LSEP8262C1 (PV-GS15PL)

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

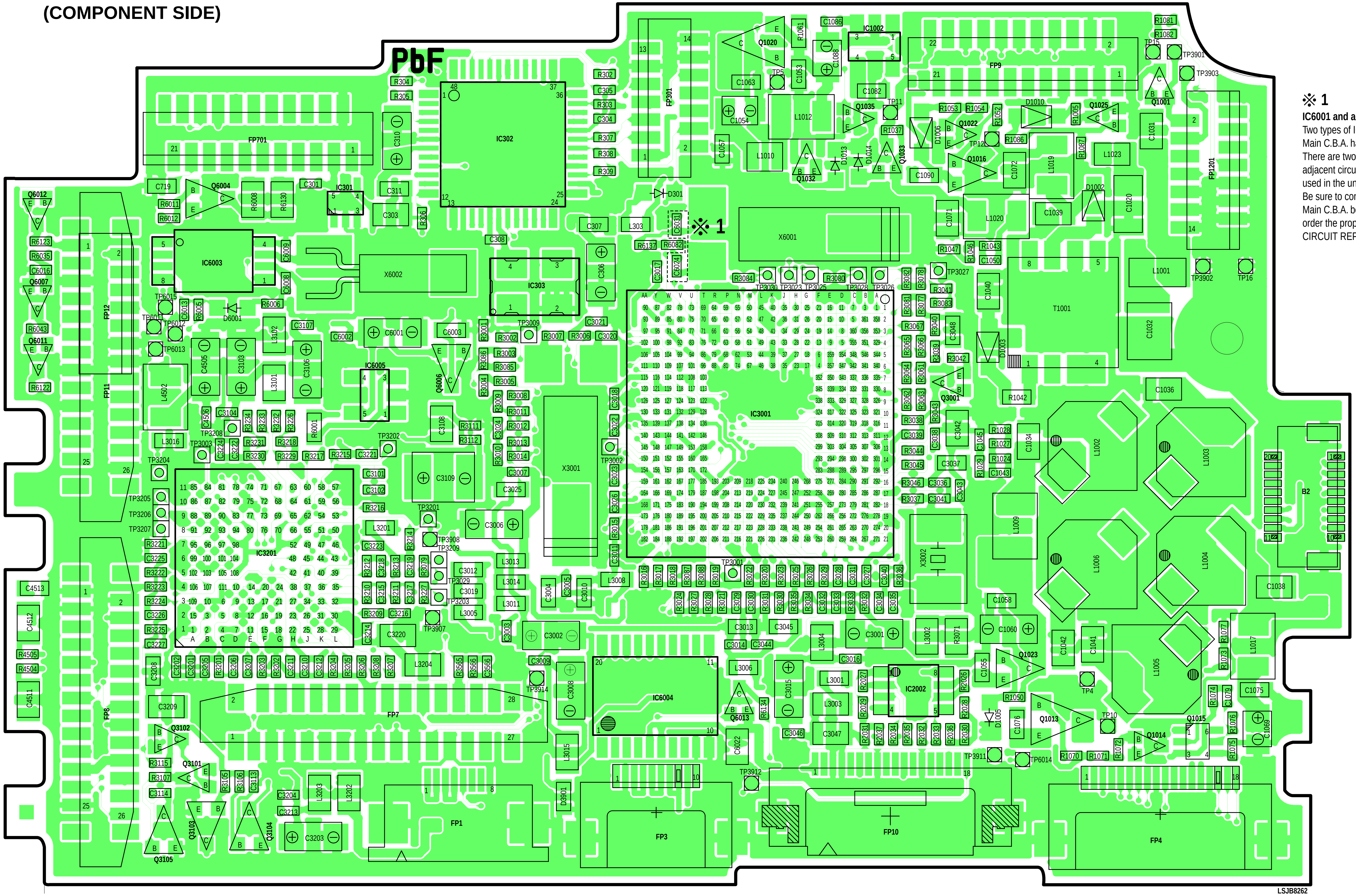
NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: MULTILAYER C.B.A.
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

NOTE:
"LSJB**** A1 B1 C1 D1 E1 P1 Q1 R1 S1 T1." is printed on Main C.B.A.
When ordering Main C.B.A., make the order with "LSEP****" instead of "LSJB****."
You will find a mark such as "LSJB8262-1 A1●C1 D1 E1 P1 Q1 R1 S1 T1", which means the part number of Main C.B.A. you are servicing.
Then "LSEP8262B1" will be the part number to order the Main C.B.A. you need.

(COMPONENT SIDE)


PbF
※1
IC302
IC301
IC303
IC6003
IC6005
IC3001
IC3201
IC6004
IC2002
IC1002
X6001
X6002
X3001
X3002
T1001
FP701
FP301
FP9
FP1201
FP12
FP11
FP8
FP7
FP1
FP3
FP10
FP4
B2
LSJB8262

※ 1

IC6001 and adjacent circuit replacement note:
Two types of IC6001 (LSSK0045, C2DBMK000022) on the Main C.B.A. have been used on a running change basis. There are two servicing methods (Type A, B) because the adjacent circuit is different depending on which IC6001 is used in the unit.
Be sure to confirm if there is the connector (FP6001) on the Main C.B.A. before servicing. When replacing, be sure to order the proper parts. Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES.

MAIN C.B.A.
LSEP8262A1/LSEP8262B1/LSEP8262C1

PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN C.B.A. LSEP8262B1 (PV-GS12PL) / LSEP8262A1 (PV-GS9PL) / LSEP8262C1 (PV-GS15PL)

NOTE: MULTILAYER C.B.A.
THIS C.B.A. IS Multi-Layer C.B.A. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

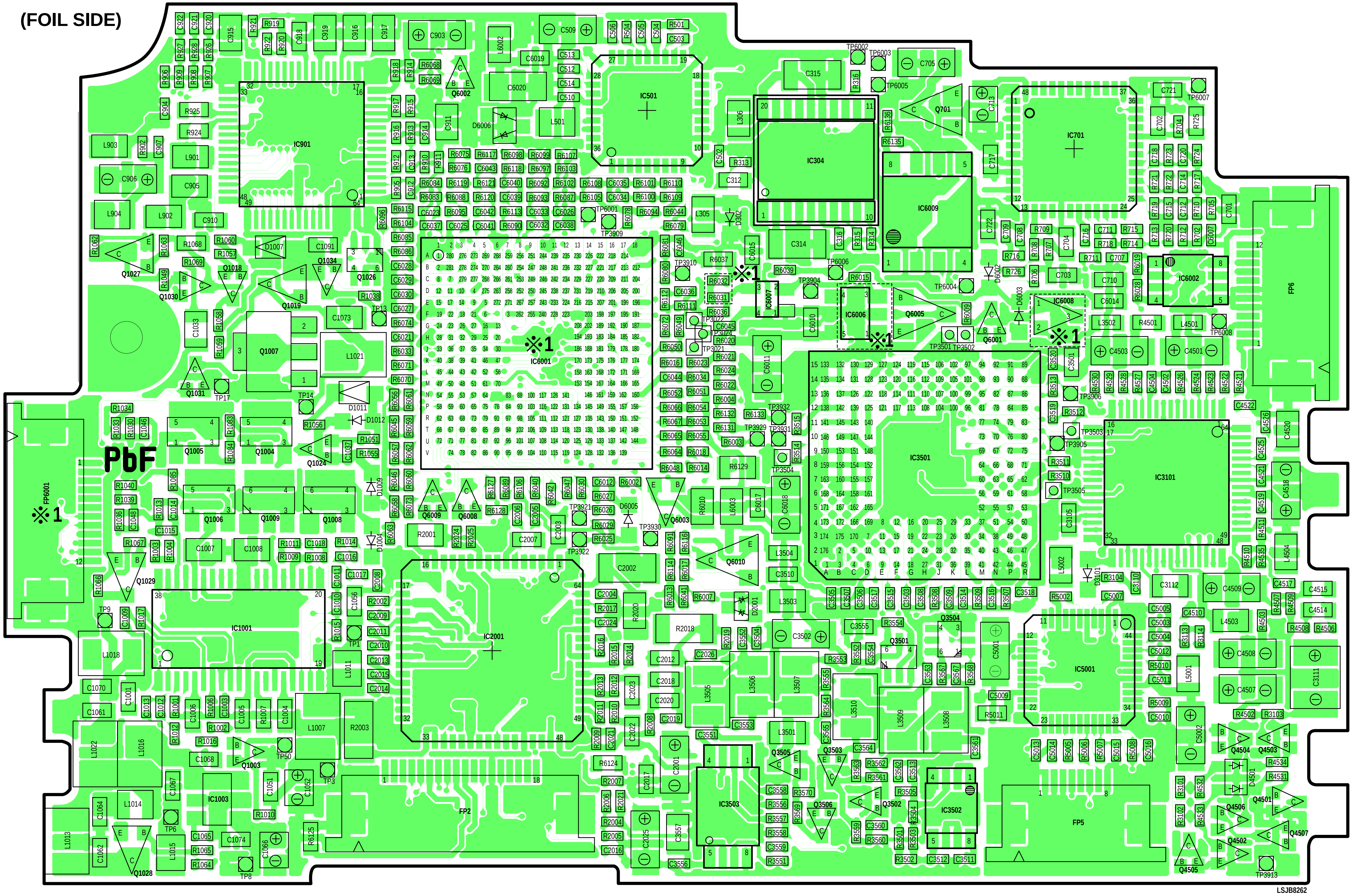
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS. FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING, PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

NOTE:
"LSJB**** A1 B1 C1 D1 E1 P1 Q1 R1 S1 T1." is printed on Main C.B.A.
When ordering Main C.B.A., make the order with "LSEP****" instead of "LSJB****."
You will find a mark such as "LSJB8262-1 A1● C1 D1 E1 P1 Q1 R1 S1 T1", which means the part number of Main C.B.A. you are servicing.
Then "LSEP8262B1" will be the part number to order the Main C.B.A. you need.

(FOIL SIDE)



※ 1

IC6001 and adjacent circuit replacement note:
Two types of IC6001 (LSSK0045, C2DBMK000022) on the Main C.B.A. have been used on a running change basis.
There are two servicing methods (Type A, B) because the adjacent circuit is different depending on which IC6001 is used in the unit.
Be sure to confirm if there is the connector (FP6001) on the Main C.B.A. before servicing. When replacing, be sure to order the proper parts. Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES.

MAIN C.B.A.
LSEP8262A1/LSEP8262B1/LSEP8262C1
PV-GS9PL/PV-GS12PL/PV-GS15PL

REAR C.B.A. LSEP8263A1

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

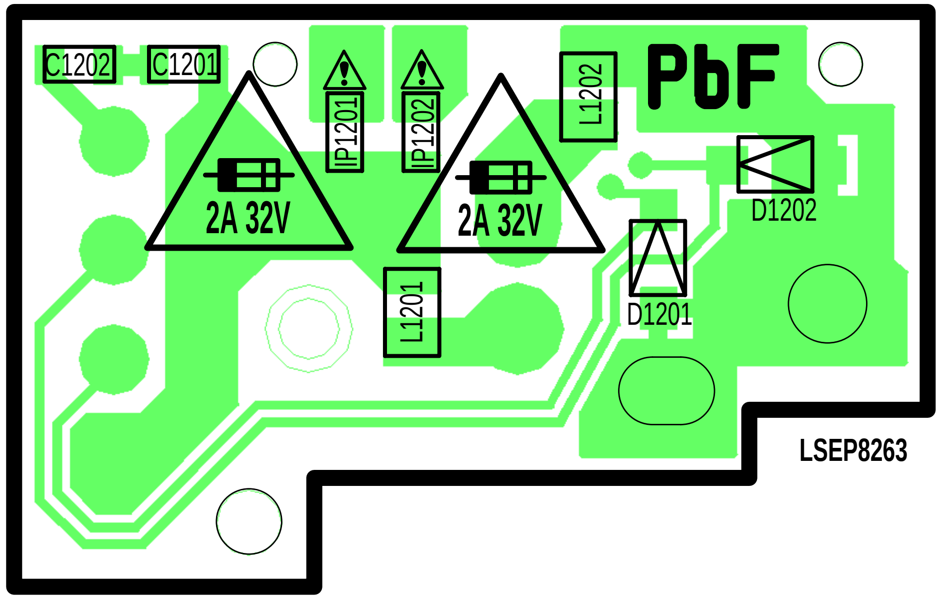
NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

⚠ 2A 32V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 2A 32V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 2A 32V

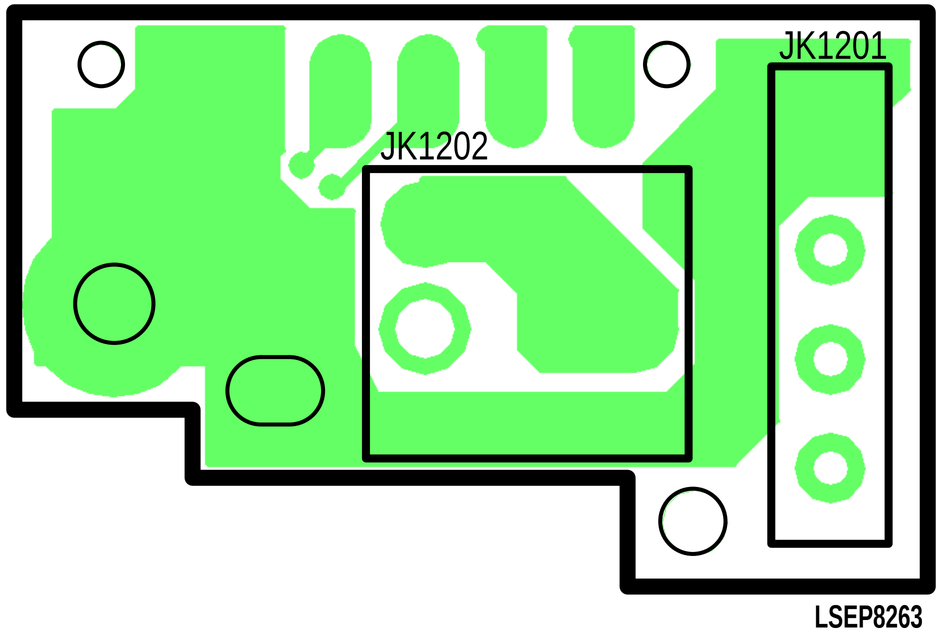
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

(COMPONENT SIDE)


C1202
C1201
IP1201
IP1202
L1202
PbF
2A 32V
2A 32V
D1202
D1201
L1201
LSEP8263

(DUAL PATTERNS)

(FOIL SIDE)


JK1201
JK1202
LSEP8263

(DUAL PATTERNS)

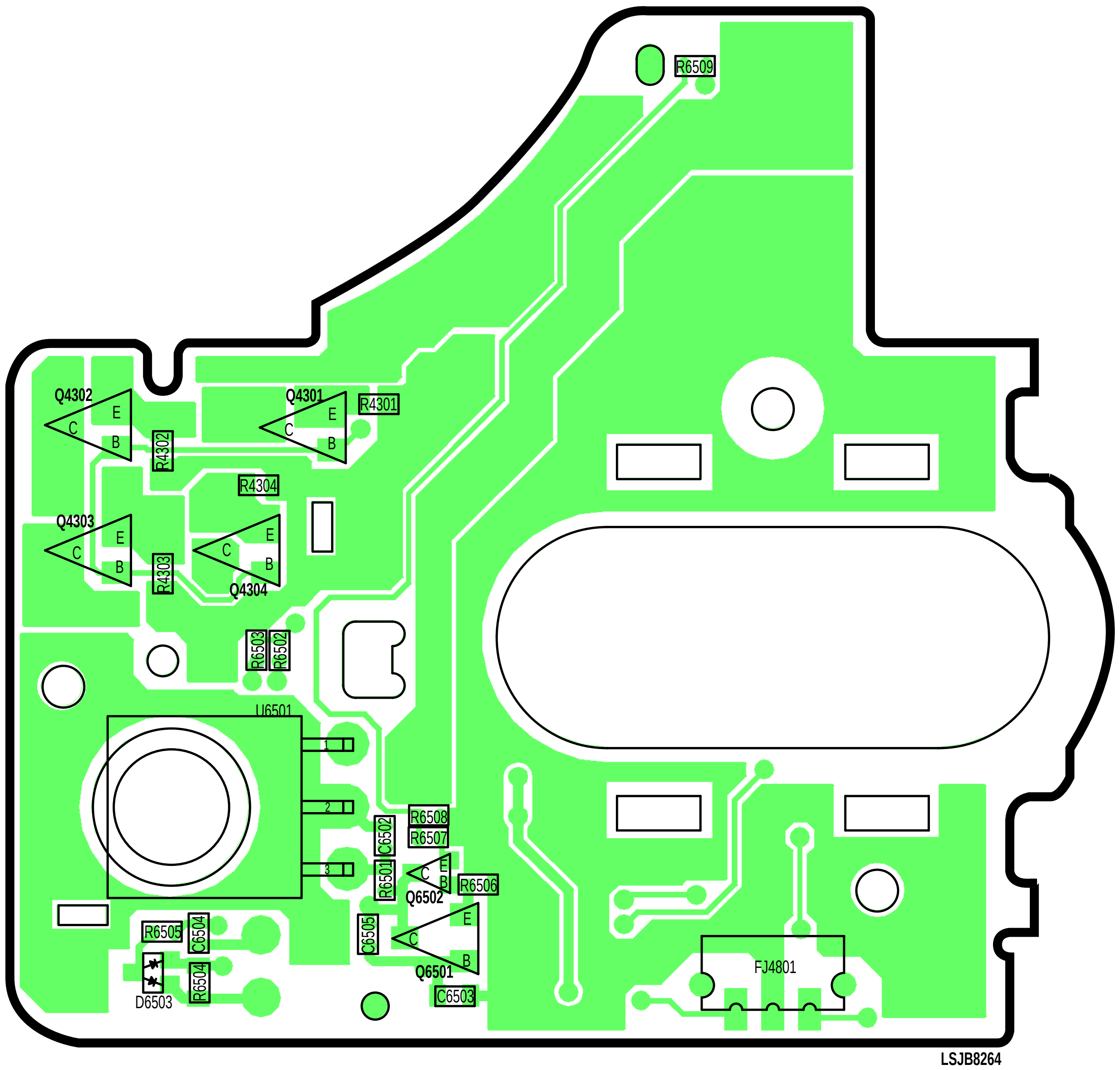
FRONT C.B.A. LSEP8264A1 (PV-GS9PL) / LSEP8264B1 (PV-GS12PL, PV-GS15PL)

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

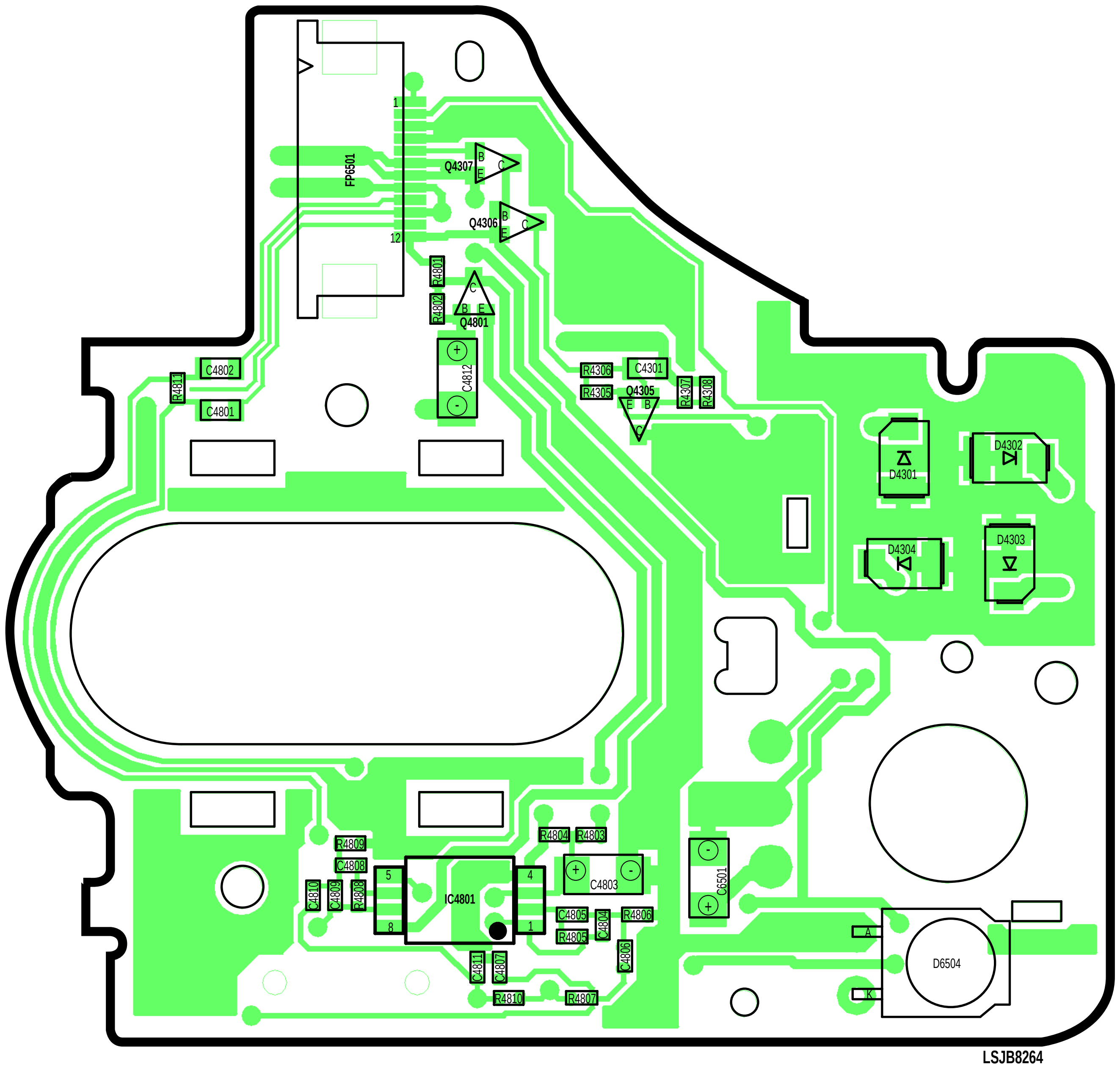
NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

(COMPONENT SIDE)


R6509
Q4302
E
C
B
Q4301
E
C
B
R4301
R4302
R4304
Q4303
E
C
B
R4303
E
C
B
Q4304
R6503
R6502
U6501
1
2
3
R6508
R6507
C6502
R6501
E
C
B
Q6502
R6506
R6505
C6504
C6505
E
C
B
Q6501
C6503
D6503
R6504
FJ4801
LSJB8264

(DUAL PATTERNS)

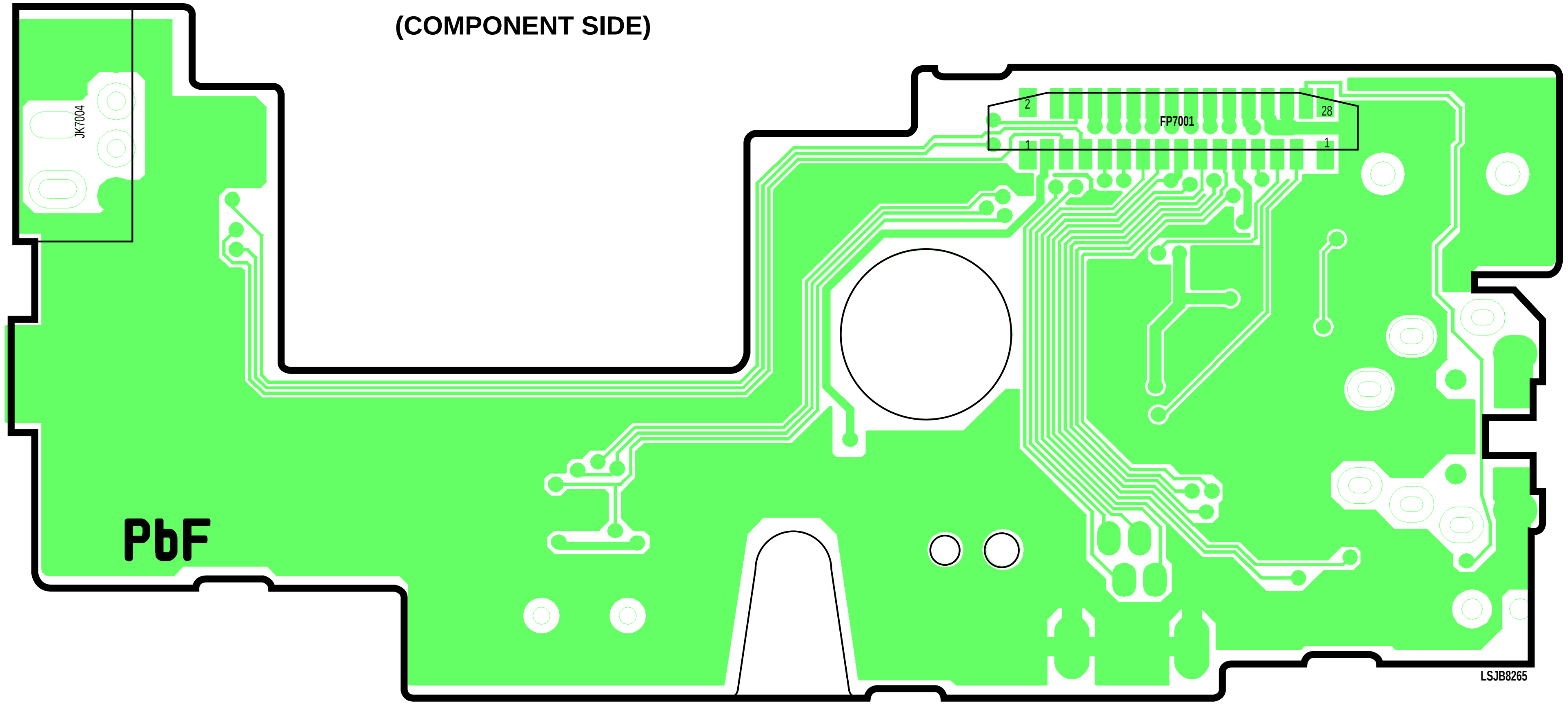
(FOIL SIDE)


FP6501
1
12
Q4307
B
E
C
Q4306
B
E
C
R4801
R4802
C
B
E
Q4801
C4812
+
-
R4811
C4802
C4801
R4306
C4301
R4305
Q4305
E
B
C
R4307
R4308
D4302
D4301
D4304
D4303
R4809
C4808
C4810
C4809
R4808
5
IC4801
4
8
1
R4804
R4803
+
C4803
-
-
C6501
+
C4805
C4804
R4806
R4805
C4806
C4811
C4807
R4810
R4807
A
K
D6504
LSJB8264

(DUAL PATTERNS)

JACK C.B.A. LSEP8265A1 (PV-GS9PL,PV-GS12PL) / LSEP8265C1 (PV-GS15PL)

(COMPONENT SIDE)


JK7004
FP7001
2
28
1
1
PbF
LSJB8265

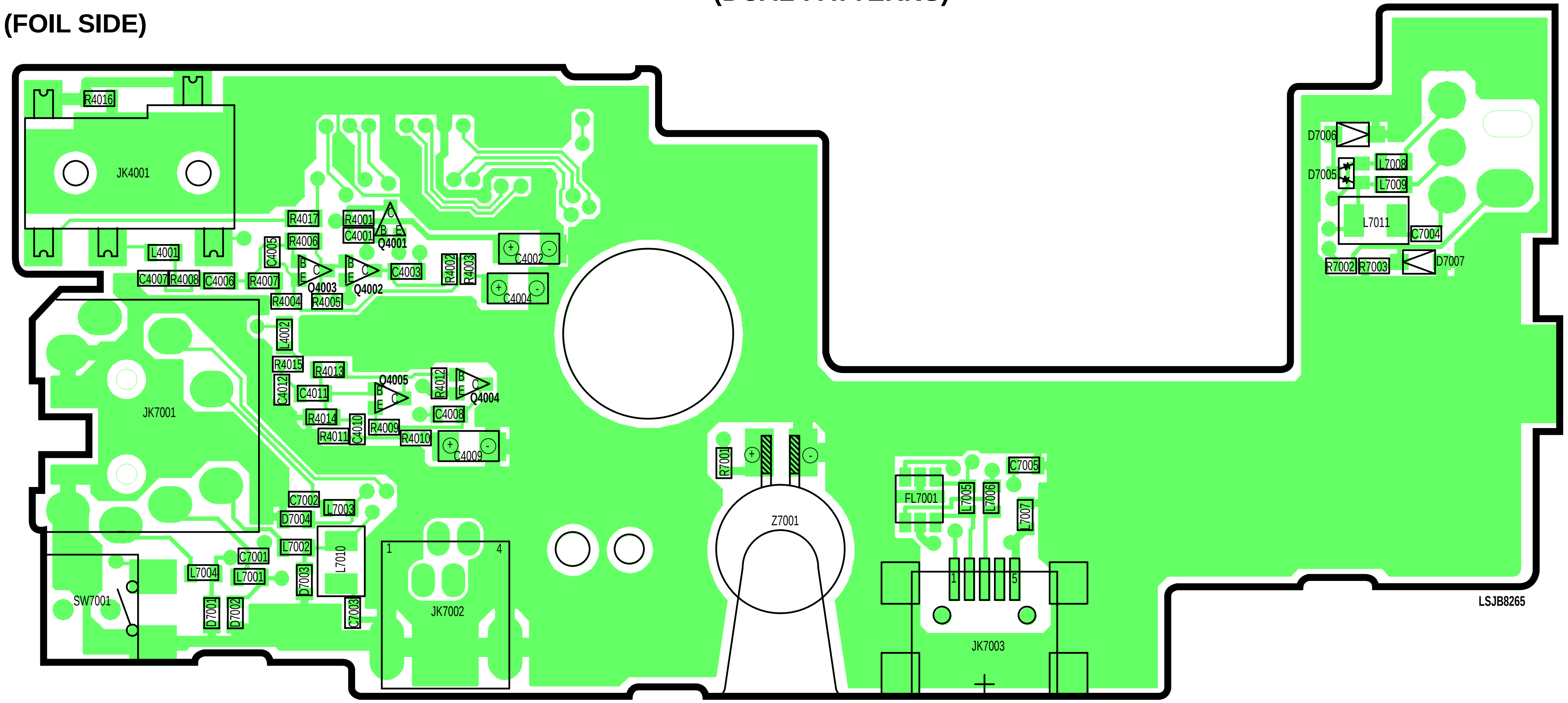
(DUAL PATTERNS)

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

(FOIL SIDE)


R4016
JK4001
L4001
C4007
R4008
C4006
R4007
C4005
R4017
R4006
R4001
C4001
Q4001
Q4003
Q4002
R4004
R4005
C4003
R4002
R4003
C4002
C4004
JK7001
L4002
R4015
C4012
R4013
C4011
R4014
R4011
C4010
R4009
R4010
Q4005
R4012
Q4004
C4008
C4009
C7002
L7003
D7004
C7001
L7002
L7004
L7001
L7010
D7003
D7001
D7002
C7003
SW7001
JK7002
1
4
R7001
Z7001
FL7001
C7005
L7005
L7006
L7007
JK7003
1
5
D7006
D7005
L7008
L7009
L7011
C7004
R7002
R7003
D7007
LSJB8265

(DUAL PATTERNS)

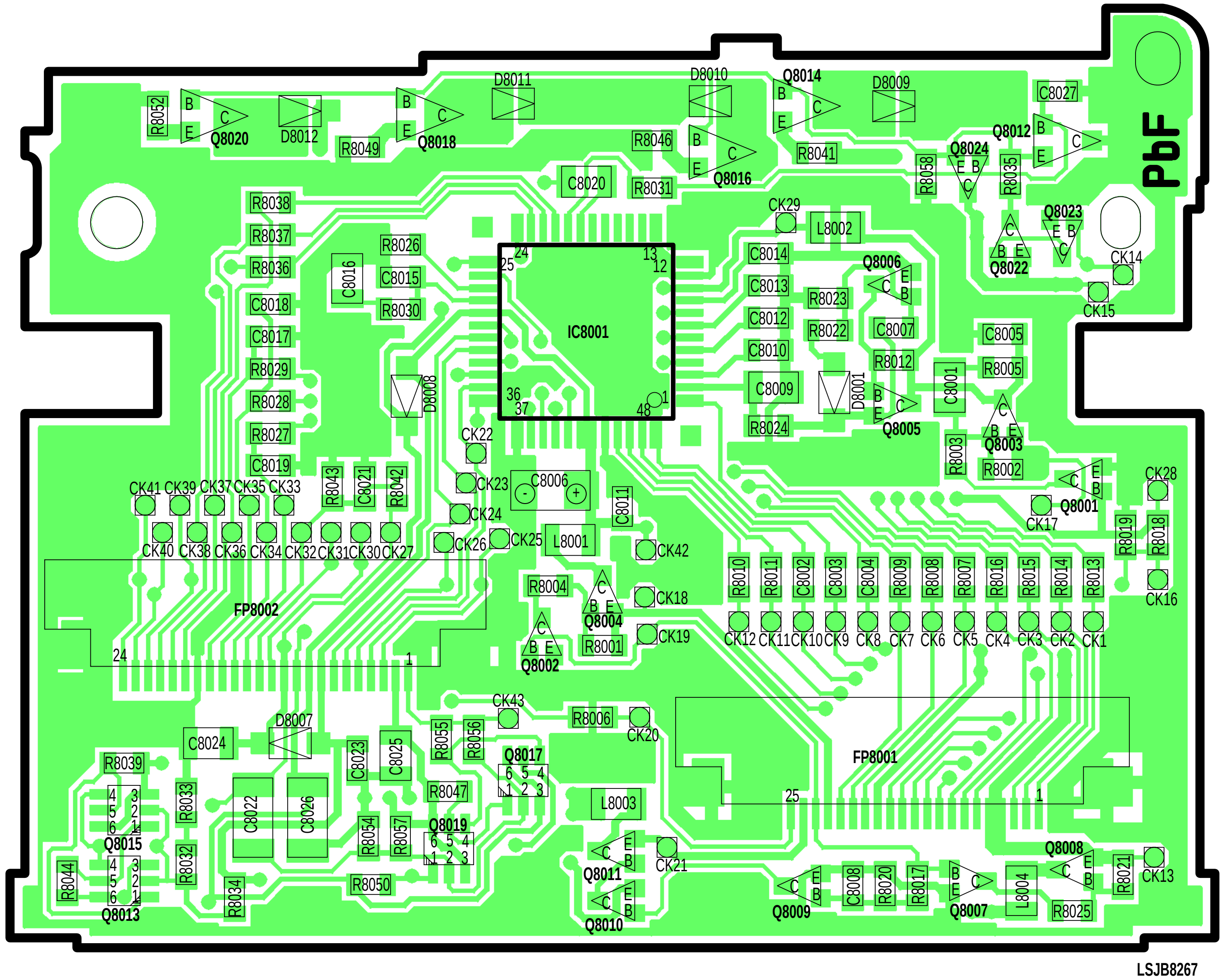
LCD C.B.A. LSEP8267A1

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

(COMPONENT SIDE)


PbF
IC8001
FP8001
FP8002
Q8001
Q8002
Q8003
Q8004
Q8005
Q8006
Q8007
Q8008
Q8009
Q8010
Q8011
Q8012
Q8013
Q8014
Q8015
Q8016
Q8017
Q8018
Q8019
Q8020
Q8022
Q8023
Q8024
D8001
D8007
D8008
D8009
D8010
D8011
D8012
L8001
L8002
L8003
L8004
C8001
C8005
C8006
C8007
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C8010
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R8043
R8044
R8046
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R8054
R8055
R8056
R8057
R8058
CK1
CK2
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CK4
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CK11
CK12
CK13
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CK15
CK16
CK17
CK18
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CK21
CK22
CK23
CK24
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CK28
CK29
CK30
CK31
CK32
CK33
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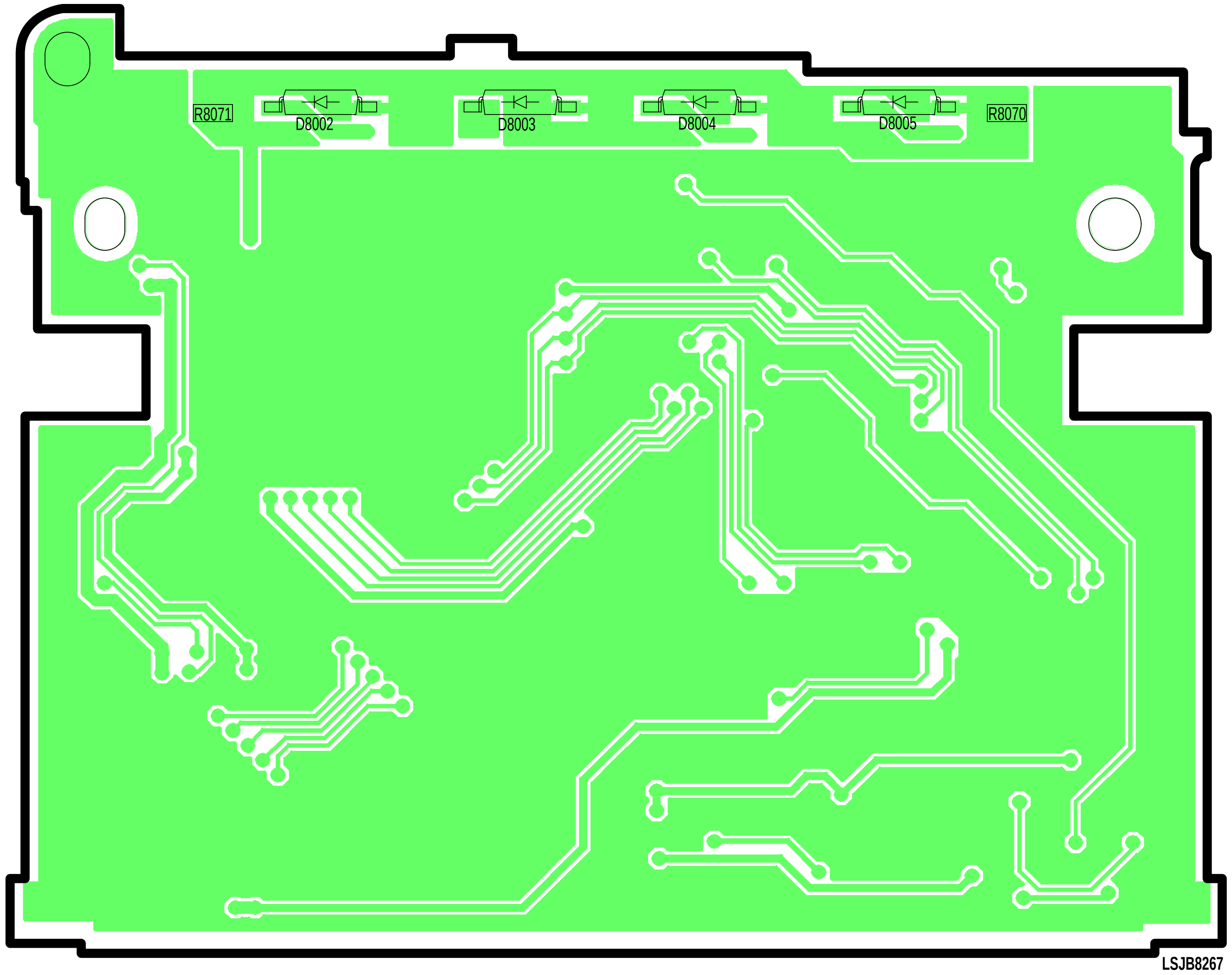
CK35
CK36
CK37
CK38
CK39
CK40
CK41
CK42
CK43
LSJB8267

(DUAL PATTERNS)

(FOIL SIDE)


R8071
D8002
D8003
D8004
D8005
R8070
LSJB8267

(DUAL PATTERNS)

MAIN PARTS PORTION

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	③	Top Piece	❶	2(524), 3(L-1)	1
2	-	Front Case Ass'y	❶	3(524), (531),(532), 2(533), FP6	2
3	-	Side Case R & LCD Ass'y	❶	3(524), 3(532), FP8, FP11 or FP12 (For model without SD Slot)	3
4	-	Lens Ass'y	❶	2(524), FP301, FP701	4
5	-	Rear Ass'y & EVFUnit	❶	(405), 4(524), (524) (For model with S-VIDEO) FP9, FP1201	5
6	(E40)	Jack C.B.A.	❶	(531), FP7, FP10	6
	⑦	Bottom Angle Unit		(532)	
7	(E10)	Main C.B.A.	❶	(L-2), FP1, FP2, FP3, FP4, FP5	7
8	-	Mechanism Chassis Ass'y	❶	(456), (L-3)	8
	①	Mecha Base Plate Unit		3(413)	
9	②	Side Case L Unit	❶	-----	-

↑ A ↑ B ↑ C ↑ D ↑ E ↑ F

How to read chart shown above:

A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.

B: Ref No.

C: Part to be removed or installed.

D: Section No.

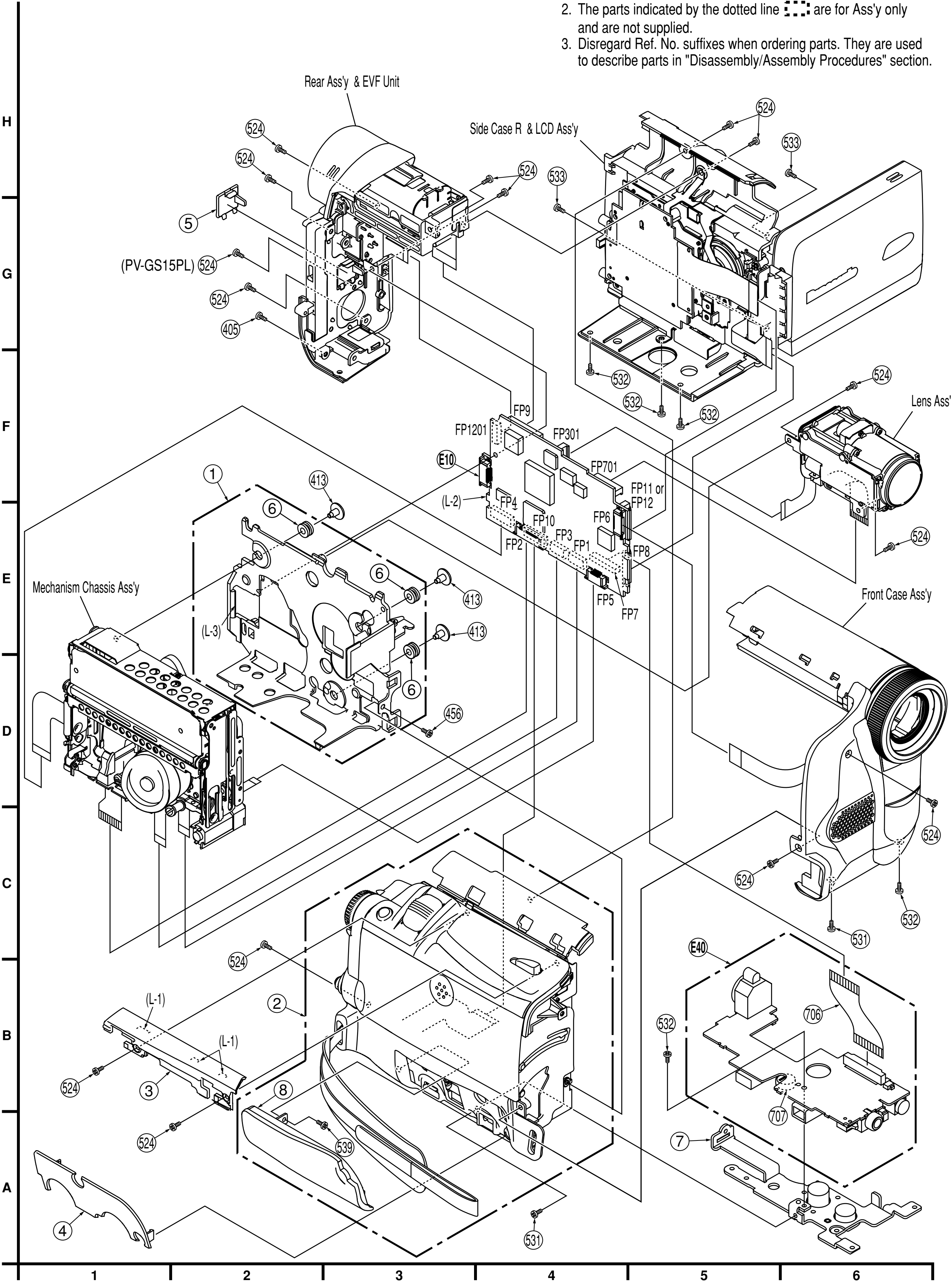
E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.
3(404) = 3 Screws (404), 2(L-1) = 2 Looking Tabs (L-1)

F: Refer to "Notes in chart."

❶ MAIN PARTS SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⬚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly/Assembly Procedures" section.



Rear Ass'y & EVF Unit
Side Case R & LCD Ass'y
524
533
5
(PV-GS15PL) 524
405
532
Lens Ass'y
FP9
FP1201
FP301
E10
FP701
FP11 or FP12
(L-2)
FP4
FP10
FP6
FP3
FP1
FP2
FP8
FP5
FP7
1
413
6
Mechanism Chassis Ass'y
(L-3)
456
Front Case Ass'y
531
E40
2
706
(L-1)
3
8
539
707
7
4
H
G
F
E
D
C
B
A
1
2
3
4
5
6

FRONT CASE PORTION

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	(53)	Decoration Label	❷	-----	9
2	(52)	Top Cover Unit	❷	2(524), (L-1)	9
3	(E30)	Front C.B.A.	❷	4(524)	10
4	(55)	**(For model with Light)** Four Eyes Lens	❷	-----	10
5	(51)	Front Unit	❷	-----	-

↑ ↑ ↑ ↑ ↑ ↑

A B C D E F

How to read chart shown above:

A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.

B: Ref No.

C: Part to be removed or installed.

D: Section No.

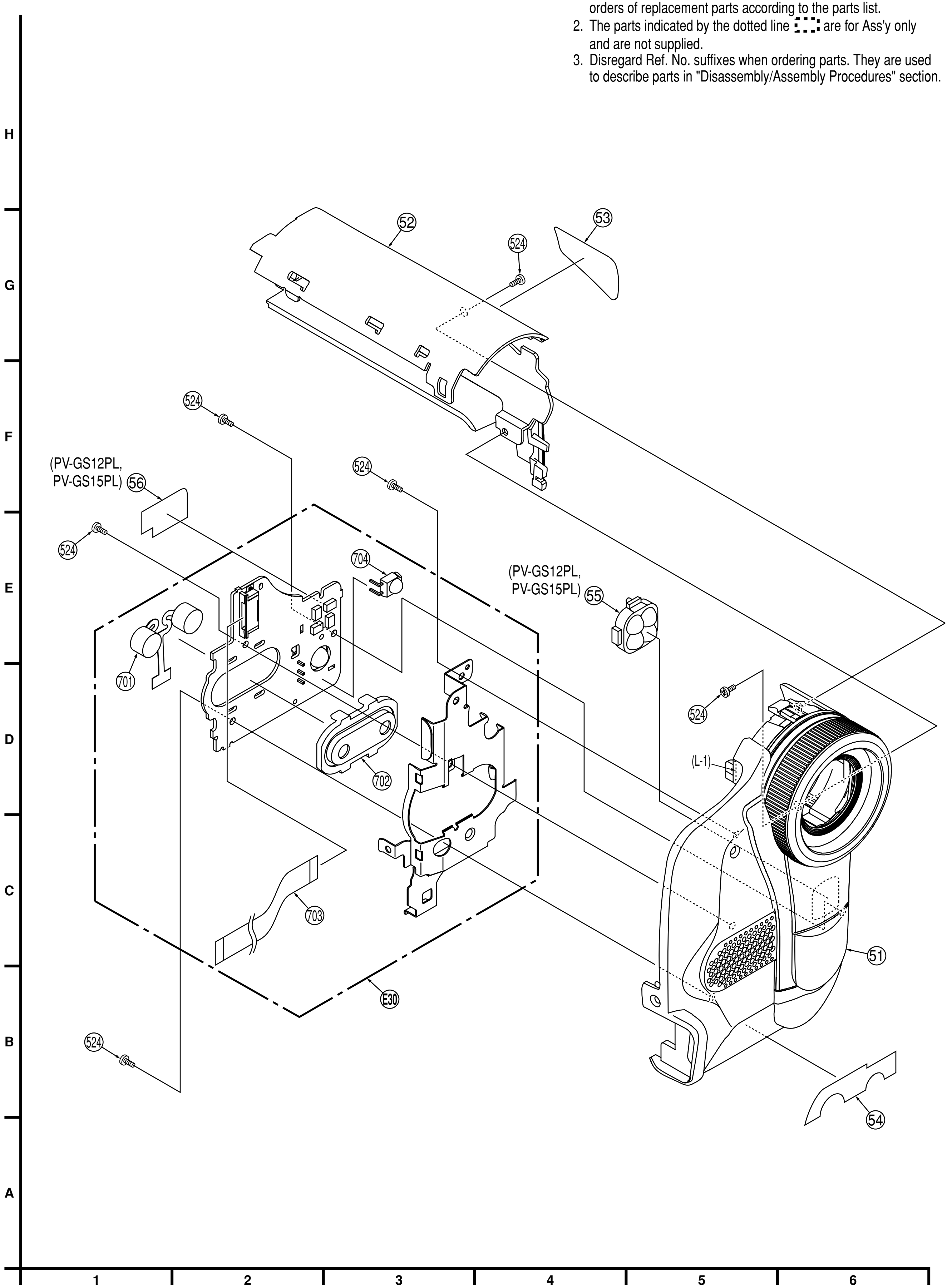
E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.
3(404) = 3 Screws (404), 2(L-1) = 2 Looking Tabs (L-1)

F: Refer to "Notes in chart."

❷ FRONT CASE SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⁞⁚⁞ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly/Assembly Procedures" section.


H
G
F
E
D
C
B
A
1
2
3
4
5
6
(52)
(53)
(524)
(524)
(PV-GS12PL,
PV-GS15PL) (56)
(524)
(524)
(704)
(PV-GS12PL,
PV-GS15PL) (55)
(701)
(524)
(L-1)
(702)
(703)
(E30)
(51)
(524)
(54)

SIDE CASE R & LCD PORTION

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	㉛	Side Case R Unit	❸	(402), (457)	11
2	㉝	LCD Case A Unit	❸	2(537), 8(L-1)	-
3	㉜	Shaft Case Unit	❸	FP8001	11
4	(E50)	LCD C.B.A.	❸	(533), 3(L-2), FP8002	12
5	-	LCD Panel Ass'y	❸	4(L-3)	12
6	㉟ ㉞	Panel Shield Case Unit LCD Case B	❸	2(L-4)	12

↑ A ↑ B ↑ C ↑ D ↑ E ↑ F

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	㊷	LCD Panel	❸	-----	13
2	㊴	Reflect Sheet	❸	-----	13
3	㊲	Lead Light Panel Unit	❸	-----	13
4	㊳	Diffusion Sheet	❸	-----	13
5	㊵	BEF Sheet	❸	-----	13
6	㊶	DBEF Sheet	❸	-----	13
7	㊱	Panel Holder Unit	❸	-----	13

↑ A ↑ B ↑ C ↑ D ↑ E ↑ F

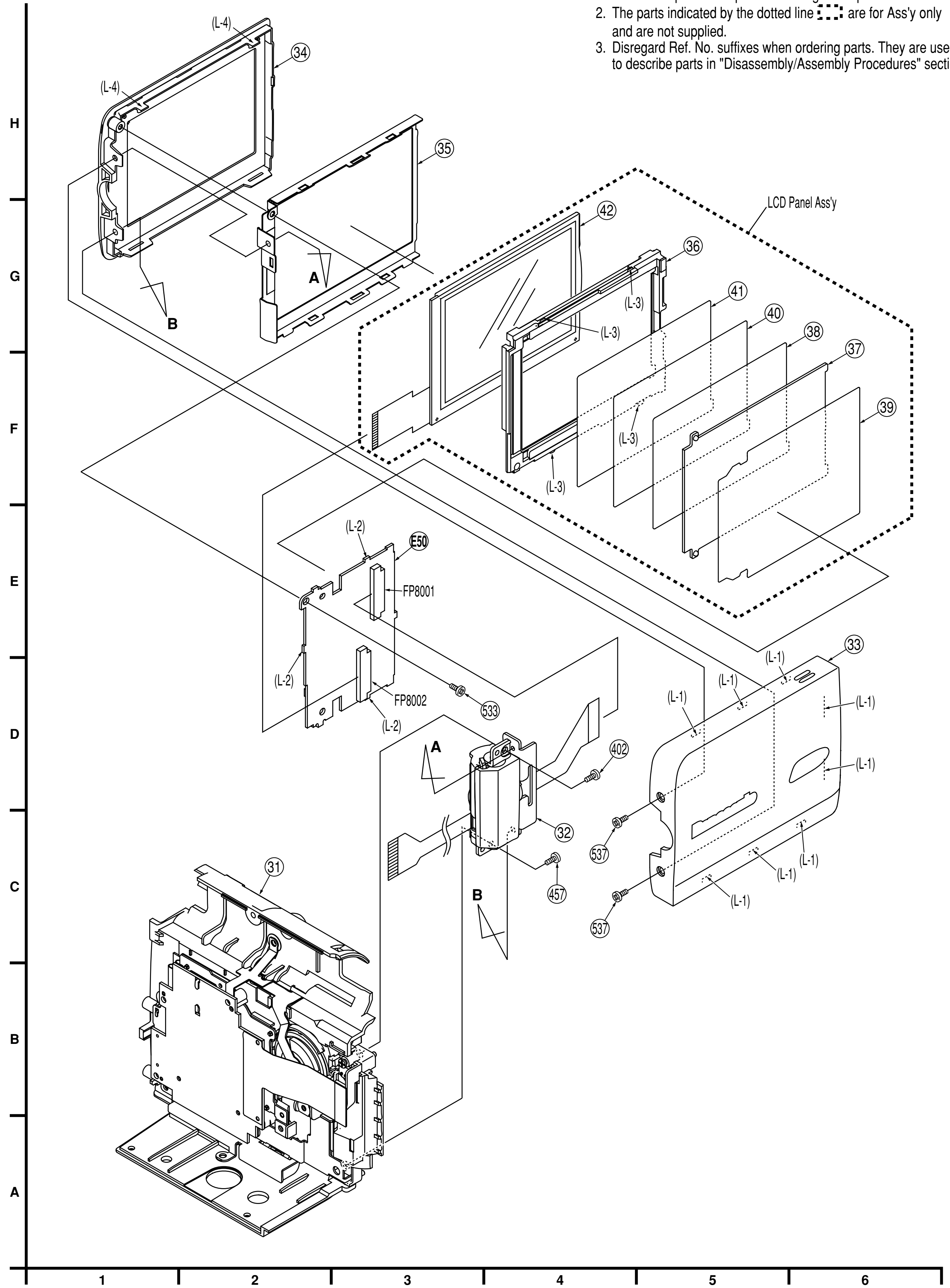
How to read chart shown above:

A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.
B: Ref No.
C: Part to be removed or installed.
D: Section No.
E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.
3(404) = 3 Screws (404), 2(L-1) = 2 Looking Tabs (L-1)
F: Refer to "Notes in chart."

❸ SIDE CASE R AND LCD SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⬚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly/Assembly Procedures" section.


(L-4)
㉞
(L-4)
㉟
LCD Panel Ass'y
㊷
㊱
(L-3)
㊶
(L-3)
㊵
㊳
㊲
(L-3)
㊴
(L-3)
A
B
(L-2)
E50
FP8001
(L-2)
FP8002
(L-2)
533
㉝
(L-1)
(L-1)
(L-1)
(L-1)
(L-1)
A
402
㉜
537
(L-1)
(L-1)
(L-1)
㉛
457
B
537
H
G
F
E
D
C
B
A
1
2
3
4
5
6

CCD & LENS PORTION

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	(E60)	CCD C.B.A.	❹	2(536)	14
2	(64)	Filter Rubber	❹	-----	14
3	(63)	Optical Filter	❹	-----	14
4	(62)	Filter Holder	❹	-----	14

↑A ↑B ↑C ↑D ↑E ↑F

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	(65)	Zoom Motor Unit	❹	2(538), Unsolder	15
2	(66)	Focus Motor Unit	❹	2(538), Unsolder	15

↑A ↑B ↑C ↑D ↑E ↑F

How to read chart shown above:

A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.
B: Ref No.
C: Part to be removed or installed.
D: Section No.
E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.
3(404) = 3 Screws (404), 2(L-1) = 2 Looking Tabs (L-1)
F: Refer to "Notes in chart."

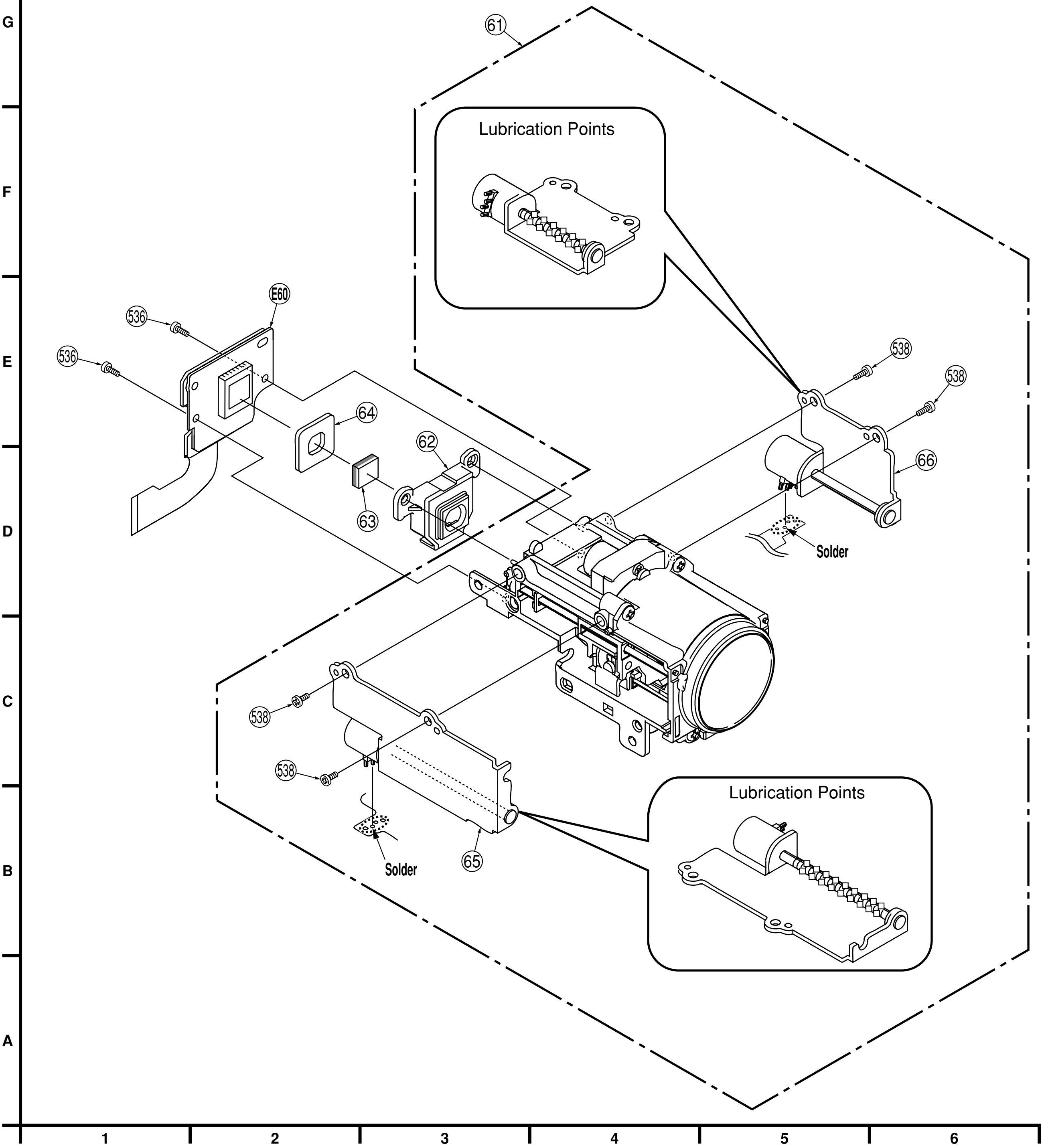
❹ CCD AND LENS SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⬚ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly/Assembly Procedures" section.

LUBRICATION POINTS
When the marked parts are replaced, apply the recommended lubricants or adhesive for better maintenance of the unit.

Mark	Kind of Lubricant	Availability	Part Number
□□□	Grease	Available from Factroy	LSZG0030


H
G
F
E
D
C
B
A
1
2
3
4
5
6
61
Lubrication Points
E60
536
536
64
62
63
538
538
66
Solder
538
538
Solder
65
Lubrication Points

REAR & EVF PORTION

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	(E20)	Rear C.B.A.	❺	2(524)	-
2	⑫	EVF Unit	❺	2(456)	16

A B C D E F

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	⑯	EVF Slide Piece	❺	2(532)	17
2	⑬ ⑮	EVF Base Frame EVF Earth Plate	❺	2(L-1)	17
3	⑭	EVF Spring	❺	(532), (L-2)	18
4	⑰	EVF F.P.C.	❺	FP951	18

A B C D E F

STEP No.	Ref. No.	PART	Section No.	REMOVE	NOTE
1	⑱ ⑲	Eye Cap Eye Cap Piece	❺	2(524)	19
2	㉓	EVF Lens Unit	❺	-----	20
3	㉒	Eye Sight Lever	❺	-----	20

A B C D E F

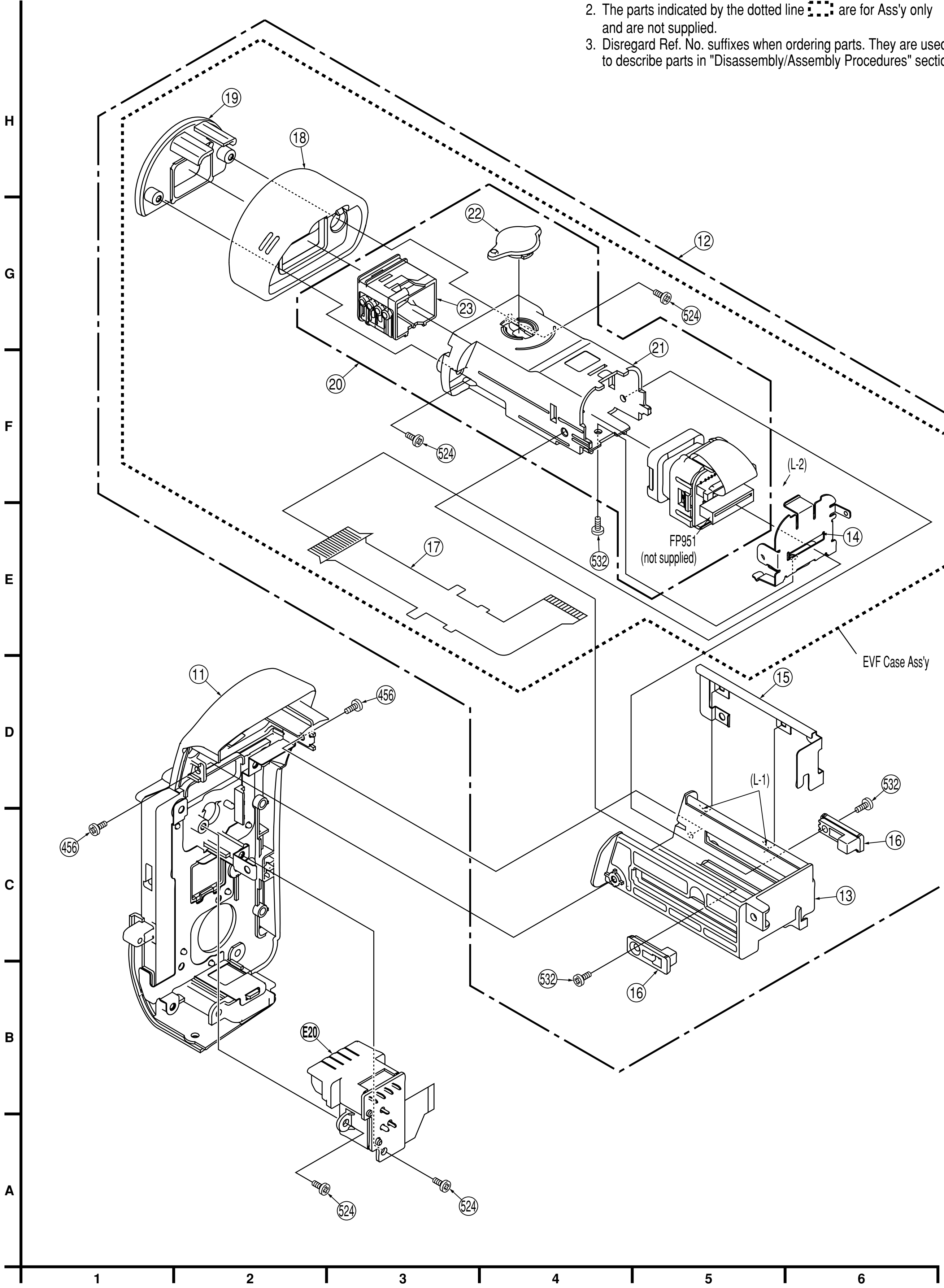
How to read chart shown above:

A: Order of Procedure steps.
When reassembling, perform steps(s) in reverse order.
B: Ref No.
C: Part to be removed or installed.
D: Section No.
E: Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.
3(404) = 3 Screws (404), 2(L-1) = 2 Looking Tabs (L-1)
F: Refer to "Notes in chart."

❺ REAR AND EVF SECTION

Note:

1. Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
2. The parts indicated by the dotted line ⁞⁞ are for Ass'y only and are not supplied.
3. Disregard Ref. No. suffixes when ordering parts. They are used to describe parts in "Disassembly/Assembly Procedures" section.



H
G
F
E
D
C
B
A
⑲
⑱
㉒
⑫
㉓
524
㉑
⑳
524
(L-2)
⑭
FP951
(not supplied)
532
⑰
EVF Case Ass'y
⑪
456
⑮
(L-1)
532
456
⑯
⑬
532
⑯
E20
524
524
1
2
3
4
5
6

Notes in chart

1. Removal of Top Piece

1) Open the Cassette Cover and remove the 2 Screws (524).
2) Release the Locking Tab (L-1a) at first while pushing up the corner of the Top Piece carefully. Then, release the Locking Tabs (L-1b) and (L-1c) to remove it.

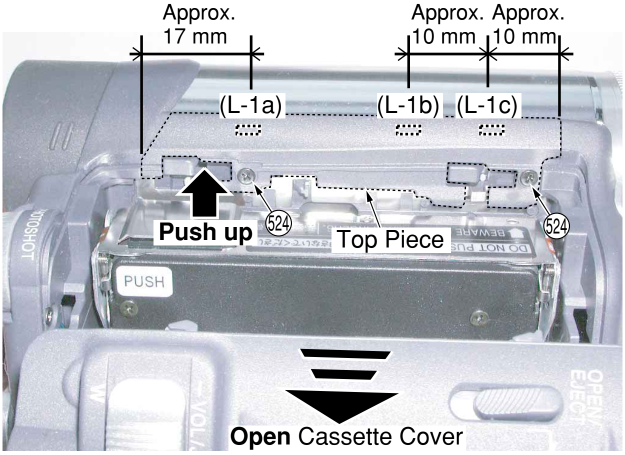

Approx.
17 mm
Approx.
10 mm
Approx.
10 mm
(L-1a)
(L-1b)
(L-1c)
Push up
524
Top Piece
524
Open Cassette Cover

Fig. D2

2. Removal of Front Case Ass'y

1) Confirm the Hand Strap has released.
2) Open the LCD and remove the 7 Screws (524, 531, 532, 533).
3) Pull and slide the Front Case Ass'y carefully so as not to damage the inner F.F.C. Then, disconnect the Connector FP6 from the Main C.B.A.

Installation of Front Case Ass'y

Set the Front Case Ass'y, and connect the Connector FP6. Then, slide to install firmly the Front Case Ass'y while shaping the F.F.C.

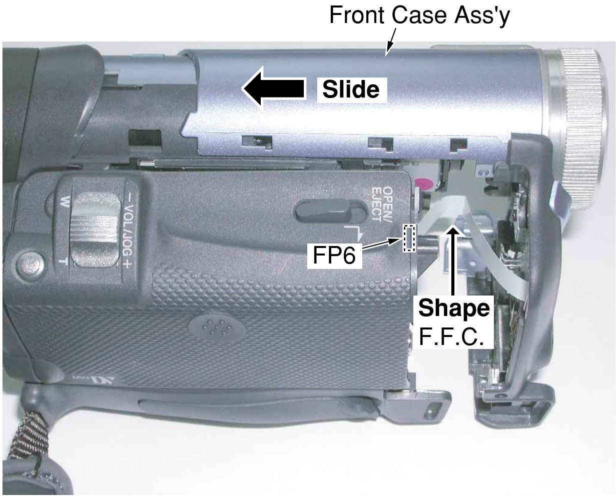
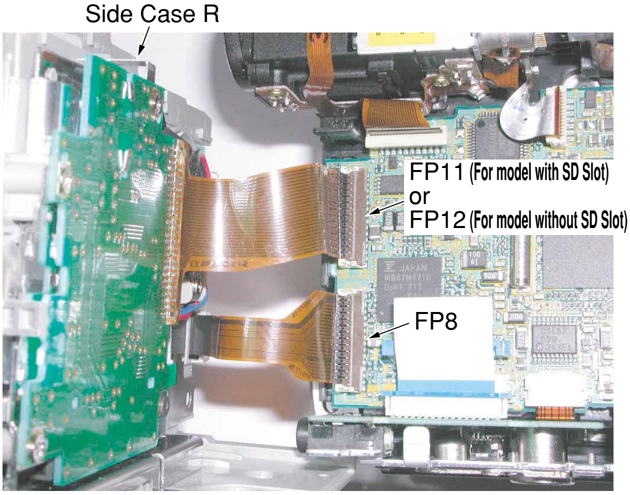
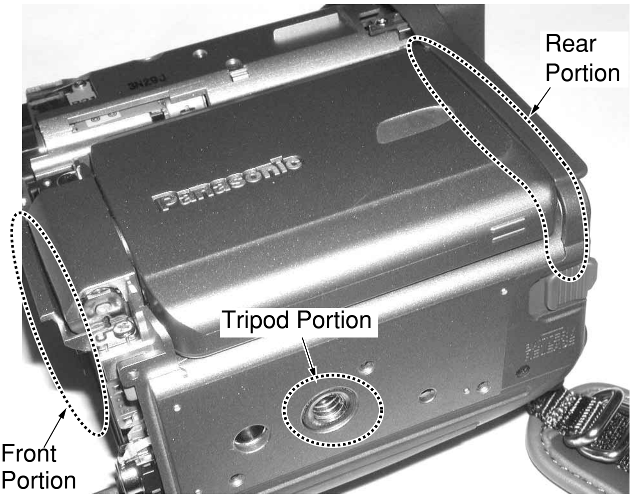

Front Case Ass'y
Slide
FP6
Shape
F.F.C.

Fig. D3

3. Installation of Side Case R & LCD Ass'y

1) Connect the Connectors FP8 and FP11 **(For model with SD Slot)** or FP12 **(For model without SD Slot)** taking care not to "POSITION" the F.P.C.s to Front Portion.


Side Case R
FP11 (For model with SD Slot)
or
FP12 (For model without SD Slot)
FP8


Rear
Portion
Tripod Portion
Front
Portion

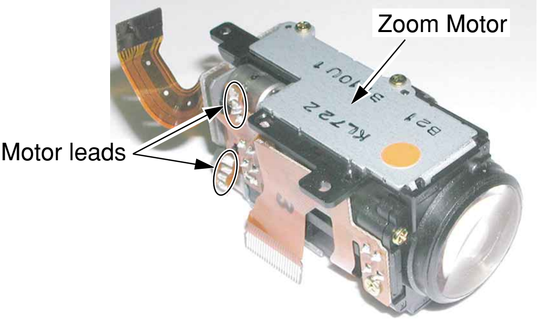
<Bottom View>

2) After installing, secure Tripod Portion and Rear Portion.

Fig. D4

4. Removal/Installation of Lens Unit

Take care not to damage the motor leads of the Lens Unit when handling.


Zoom Motor
Motor leads

<Lens Unit>

Fig. D5

5. Removal of Rear Ass'y & EVF Unit

Remove both the Rear Ass'y and the EVF Unit After removing the 6 Screws (405, 524) **(For model with S-VIDEO)** or the 5 Screws (405, 524) **(For model without S-VIDEO)**.

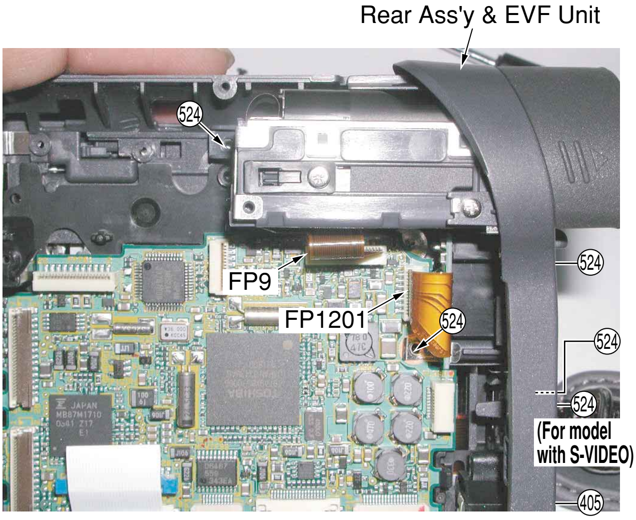

Rear Ass'y & EVF Unit
524
FP9
FP1201
524
524
524
524
(For model with S-VIDEO)
405

Fig. D6-1

Installation of Rear Ass'y & EVF Unit

Insert Rib A of the Rear Ass'y into the groove of Side Case L Unit, then insert Projection B of the Rear Ass'y firmly.

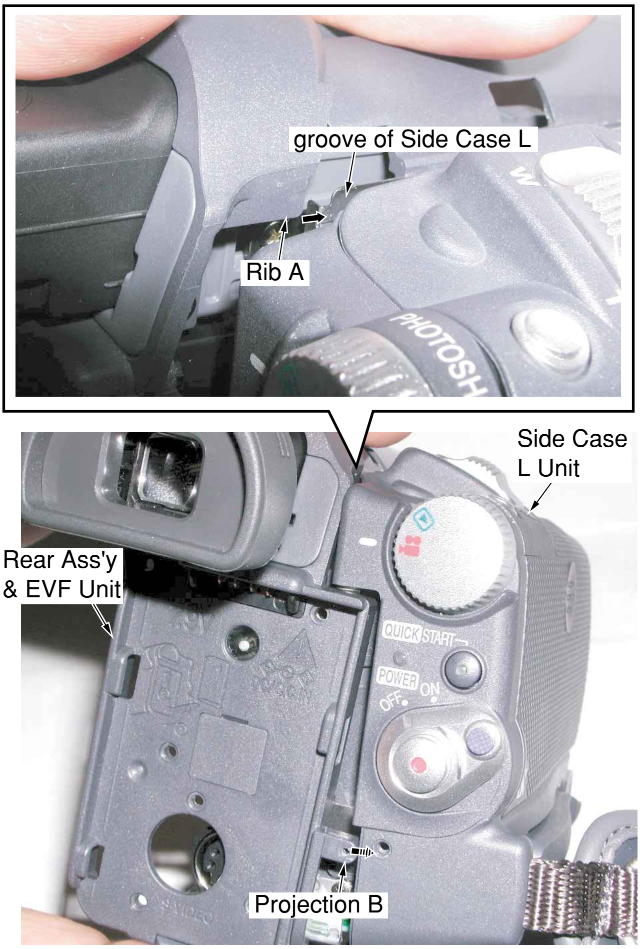

groove of Side Case L
Rib A
Side Case L Unit
Rear Ass'y & EVF Unit
Projection B

Fig. D6-2

6. Removal of Jack C.B.A. & Bottom Angle Unit

Be sure to remove (or install) it with the Jack Cover open and take care not to damage the F.P.C.s.

1) Remove the Screw (531) and disconnect the Connectors FP7 and FP10.
2) Remove both the Jack C.B.A. and the Bottom Angle Unit carefully bending the Zoom Switch F.P.C. without creasing it.

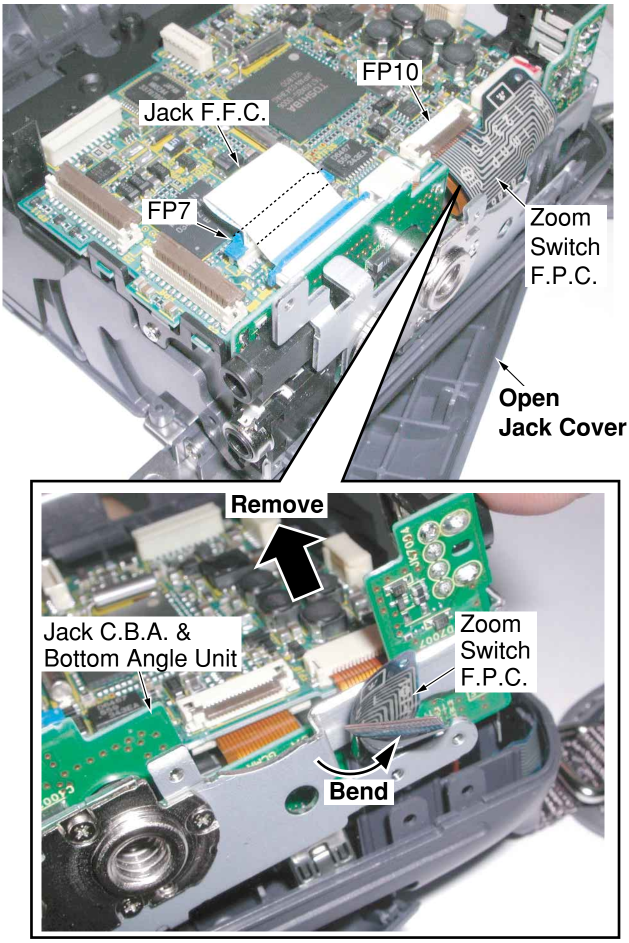

FP10
Jack F.F.C.
FP7
Zoom Switch F.P.C.
Open Jack Cover
Remove
Jack C.B.A. & Bottom Angle Unit
Zoom Switch F.P.C.
Bend

Fig. D7

7. **Installation of Main C.B.A.**

Take care not to damage the F.P.C.s.

1) Connect the Flexible Cables to the connectors on the Main C.B.A, verifying that the direction of the Flexible Cables is correct. Refer to "REMOVAL/INSTALLATION OF F.P.C. FROM NON ZIF (Zero Insertion Force) CONNECTOR."
2) After installing the Main C.B.A., confirm the F.P.C.s are positioned as shown.

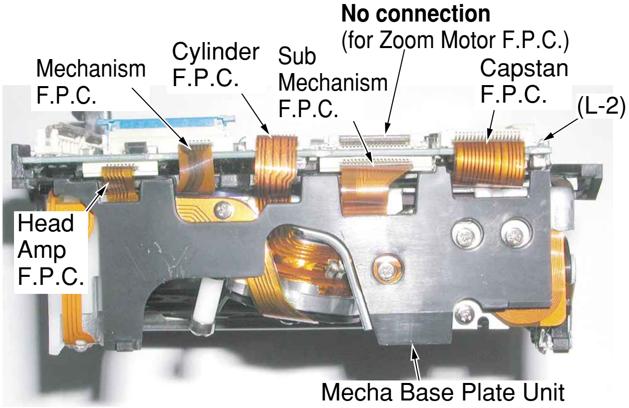

Mechanism F.P.C.
Cylinder F.P.C.
Sub Mechanism F.P.C.
No connection
(for Zoom Motor F.P.C.)
Capstan F.P.C.
(L-2)
Head Amp F.P.C.
Mecha Base Plate Unit

Fig. D8

8. **Removal of Mechanism Chassis Ass'y & Mecha Base Plate Unit**

Take care not to damage the F.P.C.s.

If necessary, these parts can be removed from the Side Case L Unit with the Main C.B.A. attached.

1) Remove the Screw (456), and release the Locking Tab (L-3).
2) Remove both the Mechanism Chassis Ass'y and the Mecha Base Plate Unit taking care not to damage the F.P.C. while passing them through the rib of the Side Case L Unit.

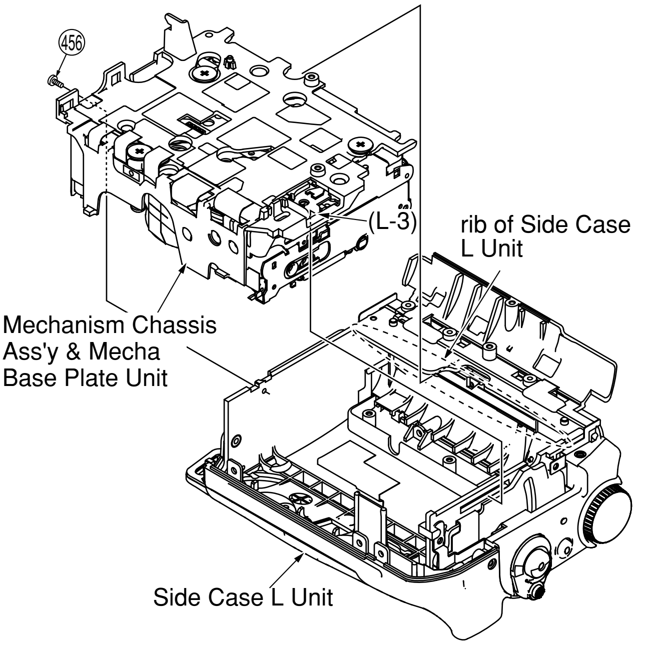

456
(L-3)
rib of Side Case L Unit
Mechanism Chassis Ass'y & Mecha Base Plate Unit
Side Case L Unit

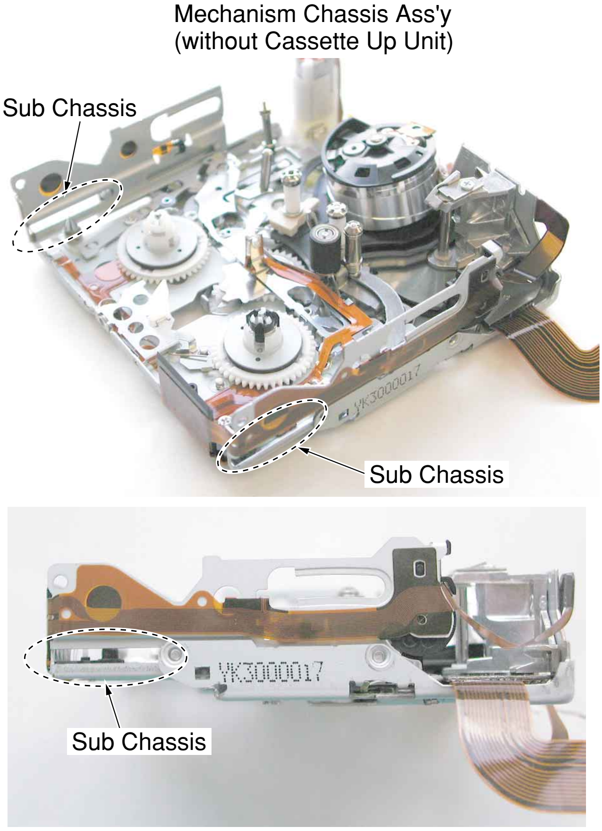
Fig. D9-1

Replacement of Mechanism Chassis Ass'y

When replacing the Main Chassis Unit or the Cylinder Unit, be sure to perform the Envelope Output Adjustment. Refer to "ENVELOPE OUTPUT ADJUSTMENT" in MECHANICAL ADJUSTMENT.

Handling Caution of Mechanism Chassis Ass'y

When servicing the Mechanism Chassis Ass'y without the Cassette Up Unit, do not handle the Sub Chassis of the Mechanism Chassis Ass'y.


Mechanism Chassis Ass'y
(without Cassette Up Unit)
Sub Chassis
Sub Chassis
YK3000017
Sub Chassis

<Side View>

Fig. D9-2

9. Removal of Top Cover Unit

When removing the Top Cover Unit, peel the Decoration Label on the Front Case Ass'y to access the Screw (524).

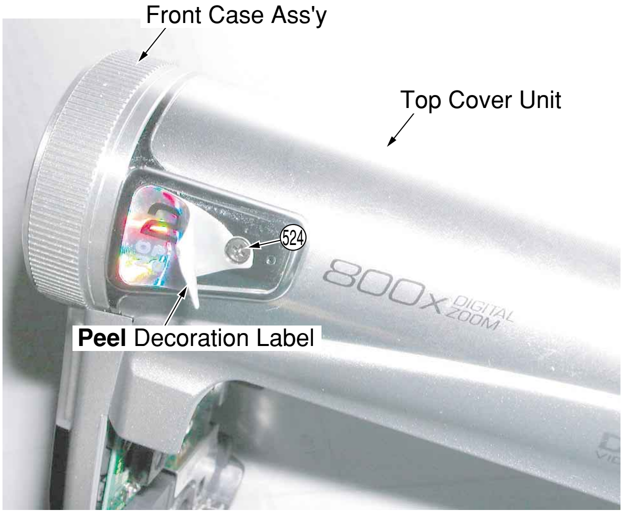

Front Case Ass'y
Top Cover Unit
524
Peel Decoration Label

Fig. D10

Installation of Top Cover Unit

1) Set the Top Cover Unit so that Portion A is inserted into the gap of the Top Cover Unit.
2) Secure the Locking Tab (L-1) and set the rib to the slot of the Top Cover Unit.
3) Tighten the 2 Screw (524), then put a new Decoration Label.

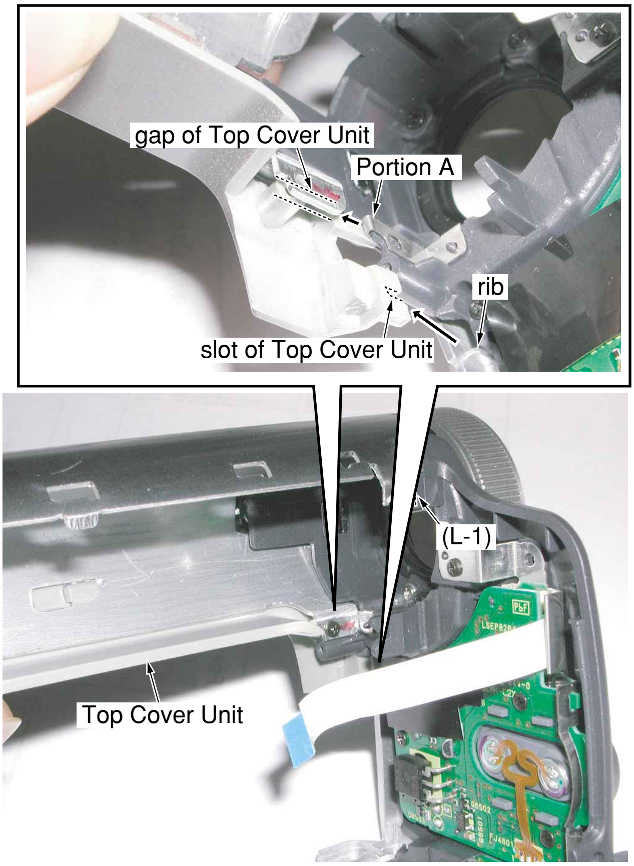

gap of Top Cover Unit
Portion A
rib
slot of Top Cover Unit
(L-1)
Top Cover Unit

Fig. D11

10. Installation of Front C.B.A.

(For model without Light)

Install the Front C.B.A. into the Front Case with 3 bosses

(For model with Light)

Install the Four Eye Lens into the Front Case, and the Front C.B.A. with 5 bosses. Then, put the Light Shield Sheet in place on the Front C.B.A.

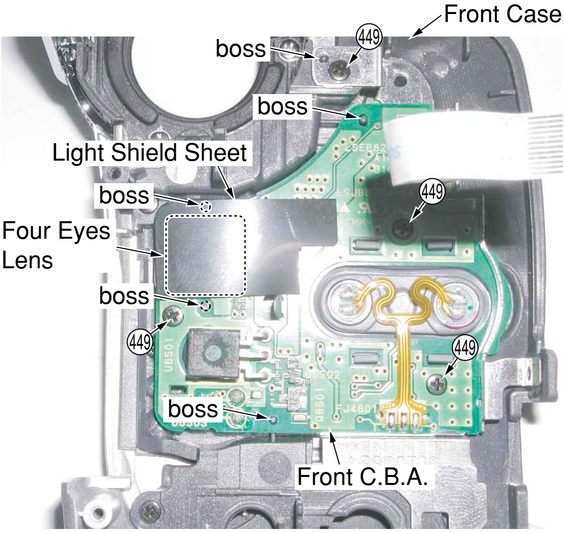

Front Case
boss
449
boss
Light Shield Sheet
boss
449
Four Eyes Lens
boss
449
449
boss
Front C.B.A.

Fig. D12

11. Removal of Side Case R Unit

Open and rotate the LCD to access the 2 Screws (402, 457) as shown below, then remove it.

Installation of Side Case R Unit

When installing, pay attention to the direction of the Shaft Case Unit. So, be sure to install the LCD into the Side Case R Unit with the LCD open as shown. Otherwise, the LCD open/close switch on the Side Case R Unit will be damaged.

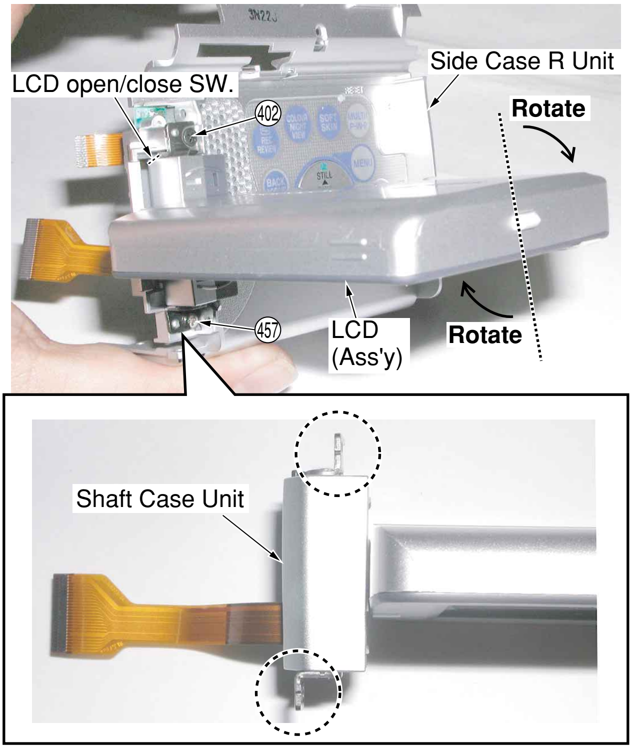

Side Case R Unit
LCD open/close SW.
402
Rotate
457
LCD
(Ass'y)
Rotate
Shaft Case Unit

Fig. D13

12. Installation of LCD C.B.A., LCD Panel Ass'y, Panel Shield Case Unit, LCD Case B

Install in order shown below.

1) Install the Panel Shield Case Unit into the LCD Case B with the 2 Locking Tabs (L-4).
2) Install the LCD Panel Ass'y onto the Panel Shield Case Unit with the 4 Locking Tabs (L-3) while bending at the base of the LCD F.P.C. so as not to damage it.
3) Install the LCD C.B.A. onto the LCD Panel Ass'y by first inserting the Locking Tab (L-2a) into the slot of the Panel Shield Case Unit. Then, secure the 2 Locking Tabs (L-2b).
4) Tighten the Screw (533) while keeping the LCD C.B.A. pressed toward the right. Then, connect the Connector FP8002.

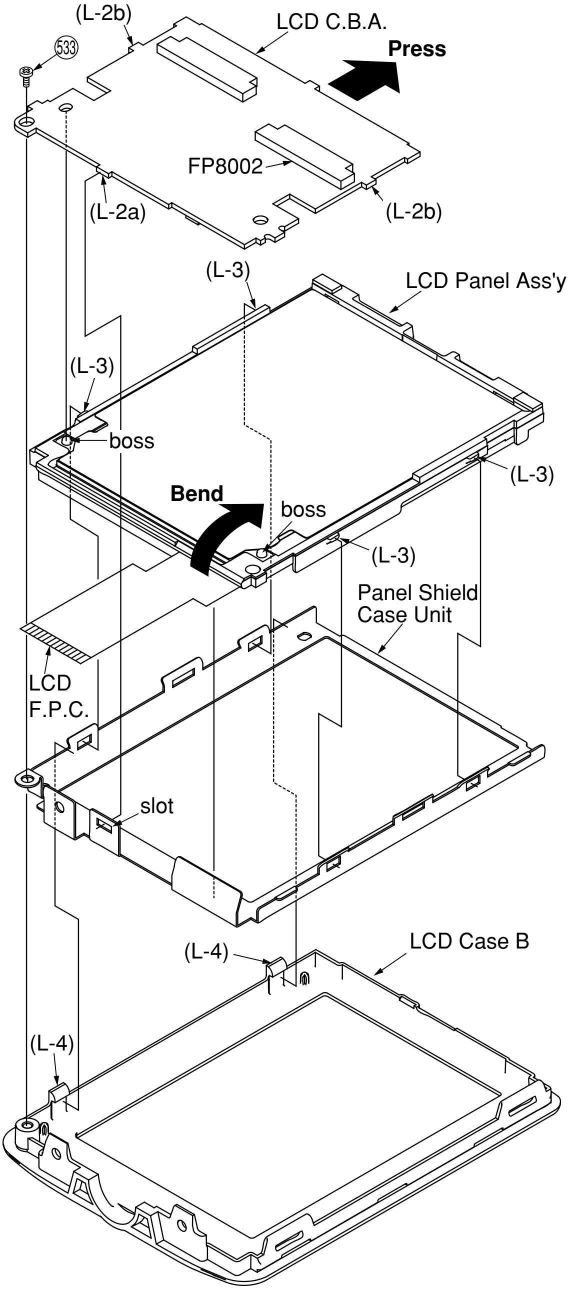

(L-2b)
LCD C.B.A.
533
Press
FP8002
(L-2a)
(L-2b)
(L-3)
LCD Panel Ass'y
(L-3)
boss
(L-3)
Bend
boss
(L-3)
Panel Shield
Case Unit
LCD
F.P.C.
slot
(L-4)
LCD Case B
(L-4)

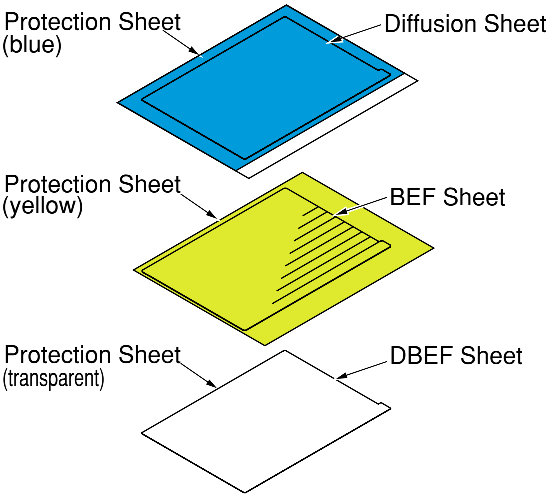
Fig. D14

13. Installation of LCD Panel, Reflect Sheet, Lead Light Panel, Diffusion Sheet, BEF Sheet, DBEF Sheet, Panel Holder Unit

a. When replacing the LCD Panel, the Diffusion Sheet, the BEF Sheet and the DBEF Sheet, make sure to remove the Protection Sheets.

To distinguish the sheets with Protection Sheet attached:

- A blue Protection Sheet is affixed to both faces of the Diffusion Sheet.
- A yellow Protection Sheet is affixed to both faces of the BEF Sheet.
- A transparent Protection Sheet is affixed to both faces of the DBEF Sheet.


Protection Sheet
(blue)
Diffusion Sheet
Protection Sheet
(yellow)
BEF Sheet
Protection Sheet
(transparent)
DBEF Sheet

b. Use extreme care when handling the LCD Panel, the Reflect Sheet, the Lead Light Panel, the Diffusion Sheet, the BEF Sheet and the DBEF Sheet to avoid damage, dust, and spots (especially fingerprints, etc.)

Install in order shown below.

1) Install the DBEF Sheet, BEF Sheet and Diffusion Sheet while inserting the corners of the sheets to the slot of the Panel Holder Unit in order.
2) Install the Lead Light Panel while inserting the corners to the slots of the Panel Holder Unit. Then, hold down the bosses (column) on the Lead Light Panel securely.
3) Align the Reflect Sheet with the edge of the Panel Holder Unit, and install it using adhesive tape on the Reflect Sheet.

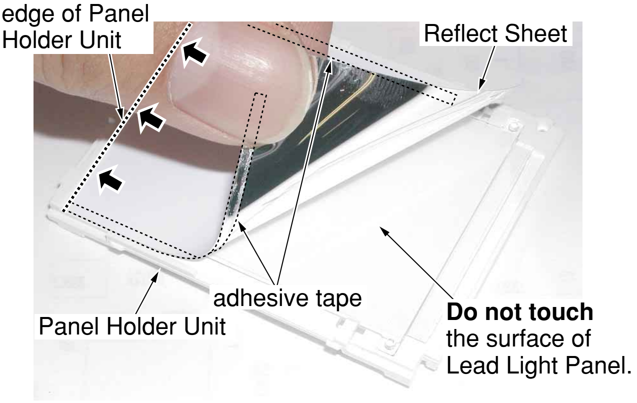

edge of Panel
Holder Unit
Reflect Sheet
adhesive tape
Panel Holder Unit
Do not touch
the surface of
Lead Light Panel.

Fig. D15-1

4) Install the LCD Panel with adhesive tape so that the cross marks are positioned in the center of the holes of the Panel Holder Unit.

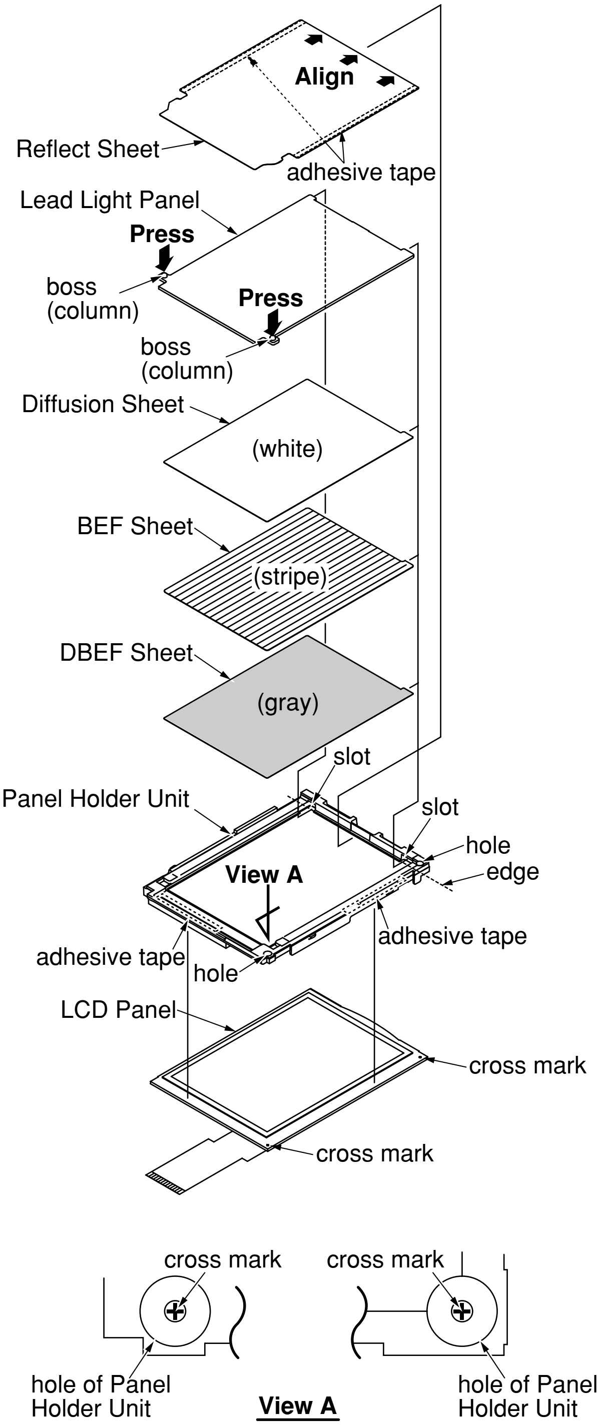

Align
Reflect Sheet
adhesive tape
Lead Light Panel
Press
boss
(column)
Press
boss
(column)
Diffusion Sheet
(white)
BEF Sheet
(stripe)
DBEF Sheet
(gray)
slot
Panel Holder Unit
slot
hole
edge
View A
adhesive tape
adhesive tape
hole
LCD Panel
cross mark
cross mark
cross mark
cross mark
hole of Panel
Holder Unit
View A
hole of Panel
Holder Unit

Fig. D15-2

14. Removal of CCD C.B.A., Filter Rubber, Optical Filter, Filter Holder

CAUTION:

1) When removing the CCD C.B.A., take care that the Optical Filter does not fall out.
2) Take extreme caution when removing the CCD C.B.A. as it is easily damaged by static electricity. Use a Wrist Strap while removing and installing.
3) Do not touch the CCD window surface.

Installation of CCD C.B.A., Filter Rubber, Optical Filter, Filter Holder

Install in order shown below.

1) Install the Filter Holder correctly.
2) Install the Optical Filter correctly.
   Note: Make sure that no dust gets on the Optical Filter or in the Lens Unit. Clean the Optical Filter with lens cleaning paper dampened with lens cleaner if necessary.
3) Install the Filter Rubber on the Optical Filter correctly as shown below.
   Note: Make sure that no dust gets on the Filter Rubber.
4) Install the CCD C.B.A. into the Lens Unit. Then, tighten the 2 Screws (536).
   Note: Do not touch the Lens Surface. Clean the surface with lens cleaning paper dampened with lens cleaner if necessary.

15. Installation of Zoom Motor Unit/Focus Motor Unit

Install the Zoom Motor Unit/Focus Motor Unit so that the Shaft of the Zoom Motor Unit/Focus Motor Unit is set in the Holder.

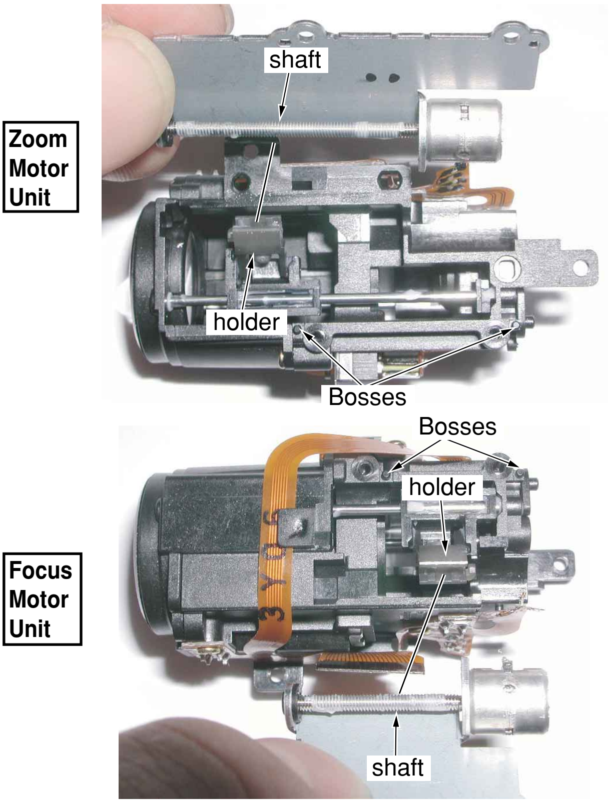

Zoom Motor Unit
shaft
holder
Bosses
Focus Motor Unit
Bosses
holder
shaft

Fig. D16

16. Installation of EVF Unit

1) Confirm that the EVF F.P.C. is hooked to the Hooking Portions on the Bottom.
2) Install the EVF Unit into the Rear Case Unit while holding the EVF F.P.C. to avoid damage of the EVF F.P.C.

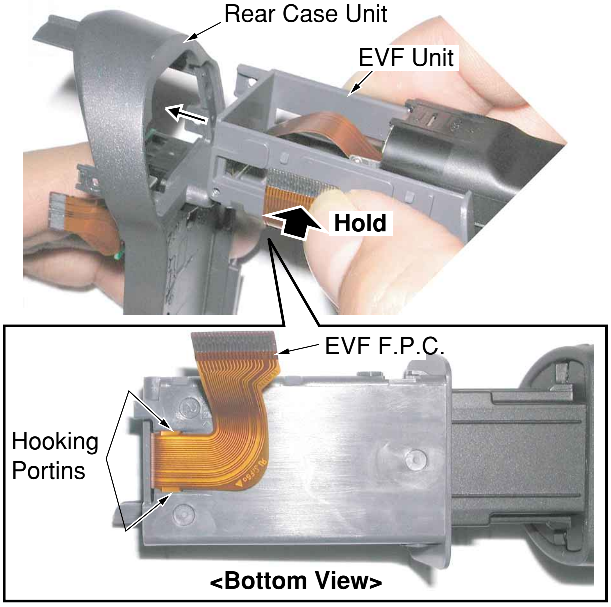
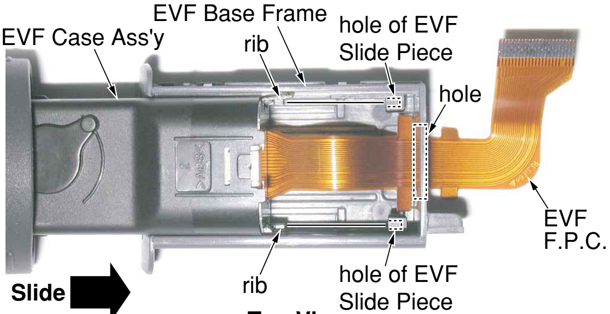

Rear Case Unit
EVF Unit
Hold
EVF F.P.C.
Hooking Portins
<Bottom View>

Fig. D17

17. Installation of EVF Slide Piece, EVF Base Frame

1) Pass the EVF F.P.C. through the EVF Base Frame hole.
2) Install the EVF Slide Pieces into the EVF Base Frame from the both side.
3) Slide the EVF Case Ass'y to the end so that the ribs are inserted to the holes of the EVF Slide Pieces.
4) Confirm the threaded holes, and tighten the 2 Screws (532).
5) After installing, confirm the EVF moves correctly.


EVF Base Frame
EVF Case Ass'y
rib
hole of EVF Slide Piece
hole
EVF F.P.C.
Slide
rib
hole of EVF Slide Piece

<Top View>

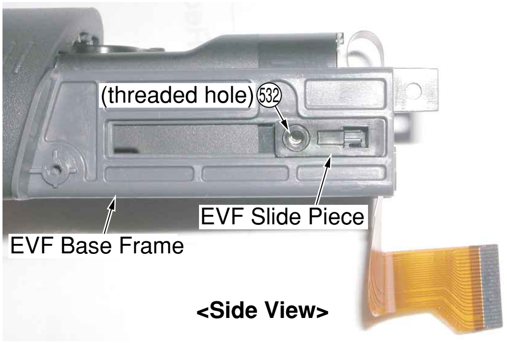

(threaded hole) 532
EVF Slide Piece
EVF Base Frame
<Side View>

Fig. D18

18. **Installation of EVF Spring, EVF F.P.C.**
    1) Insert the EVF F.P.C. into the EVF Spring hole paying particular attention to the direction.
    2) Connect the EVF F.P.C. to Connector FP951.
    3) Insert the Locking Tab (L-2) at first, then fit the EVF Spring in the EVF Case and tighten the Screw (532).

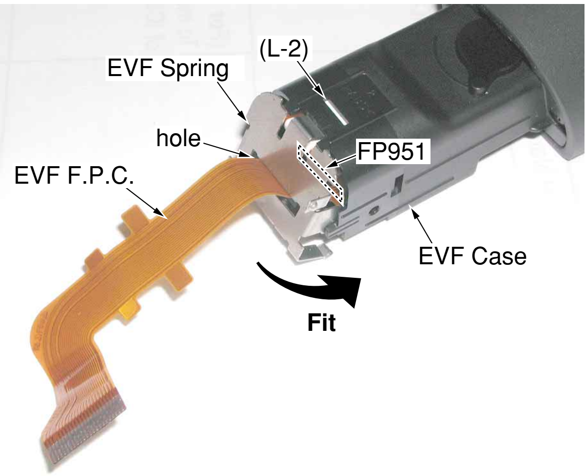

(L-2)
EVF Spring
hole
FP951
EVF F.P.C.
EVF Case
Fit

Fig. D19

19. **Removal of Eye Cap, Eye Cap Piece**
    Remove both the Eye Cap and the Eye Cap Piece after removing the 2 Screws (524).

20. **Handling cautions of EVF Lens Unit**
    Use extreme care when handling the EVF Lens Unit to avoid damage, dust, and spots (especially fingerprints, etc.)

    Installation of EVF Lens Unit, Eye Sight Lever
    1) Install the Eye Sight Lever into the EVF Case hole at the direction as shown.
    2) Install the EVF Lens Unit into the EVF Case while grasping both sides of the springs with tweezers or, etc.
    3) After installing, confirm the Eye Sight Lever and the EVF Lens Unit work together correctly.

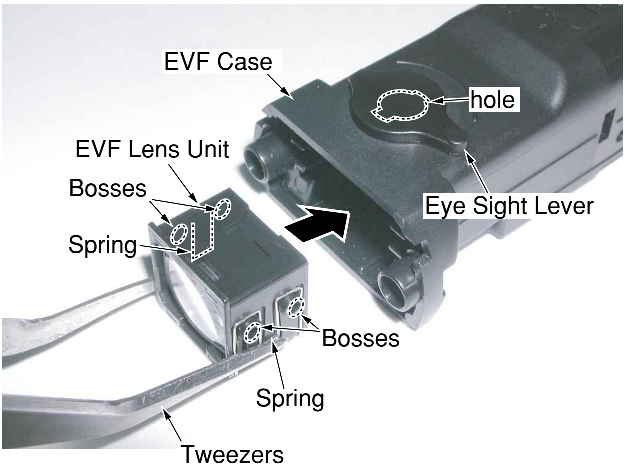

EVF Case
hole
EVF Lens Unit
Bosses
Eye Sight Lever
Spring
Bosses
Spring
Tweezers

Fig. D20

1. **Important safety notice**

   Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components. Use only the specified parts.

2. Do not use the part number shown on this drawing for ordering.
   The correct part number and part value is shown in the parts list, and may be slightly different or amended since this drawing was prepared.

3. Use only original replacement parts:
   To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

4. Parts different in shape or size may be used.
   However, only interchangeable parts will be supplied as service replacement parts.

5. Test point information

   ○ : Test point with no test pin.

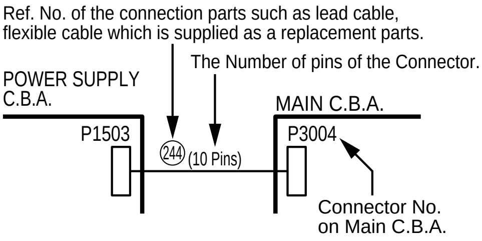
Schematic Diagram Notes

1. Indication for Zener Voltage of Zener Diodes
   The Zener Voltage of Zener Diodes are indicated as such on Schematic Diagrams.

   Example:
   (6.2V)......Zener Voltage

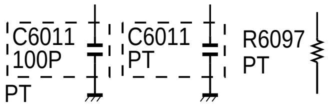
2. How to identify Connectors
   Each connector is labeled with a Connector No. and Pin No. Indicating what it is connected to,
   in other words, its counter part.
   Use the interconnection schematic diagram to find the connection between associated connectors.

   Example:
   The connections between C.B.A.s are shown below.


Ref. No. of the connection parts such as lead cable, flexible cable which is supplied as a replacement parts.
The Number of pins of the Connector.
POWER SUPPLY C.B.A.
MAIN C.B.A.
P1503
(244)
(10 Pins)
P3004
Connector No. on Main C.B.A.

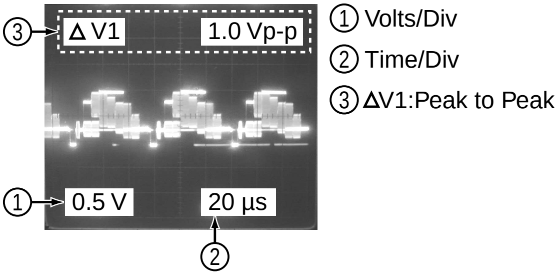
3. Parts marked "PT" are not used in any models included in this service model.

   Example:


C6011
100P
PT
C6011
PT
R6097
PT

Signal Waveform Note

How to read Signal Waveform



Voltage Chart Note

Voltage Measurement

a. Color bar signal in SP mode.
b. ---:Unmeasurable or not necessary to measure.

Circuit Board Layout Note

Circuit Board Layout shows components installed for various models.
For proper parts content for the model you are servicing, please refer to the schematic diagram and parts list.

NOTE:

Circuit Board Layout includes components which are not used.

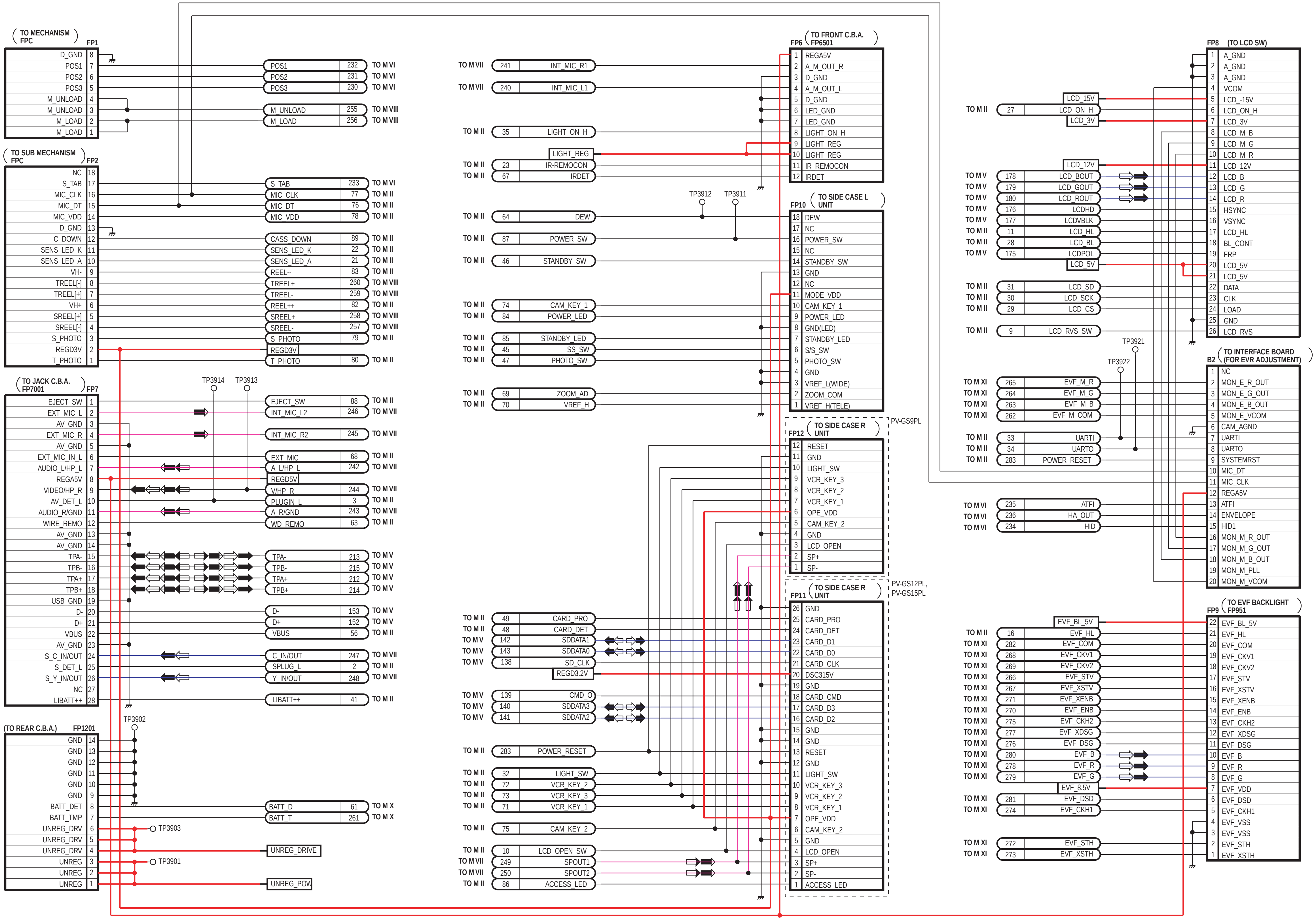
MAIN I SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

REC VIDEO SIGNAL PB VIDEO SIGNAL REC AUDIO SIGNAL PB AUDIO SIGNAL

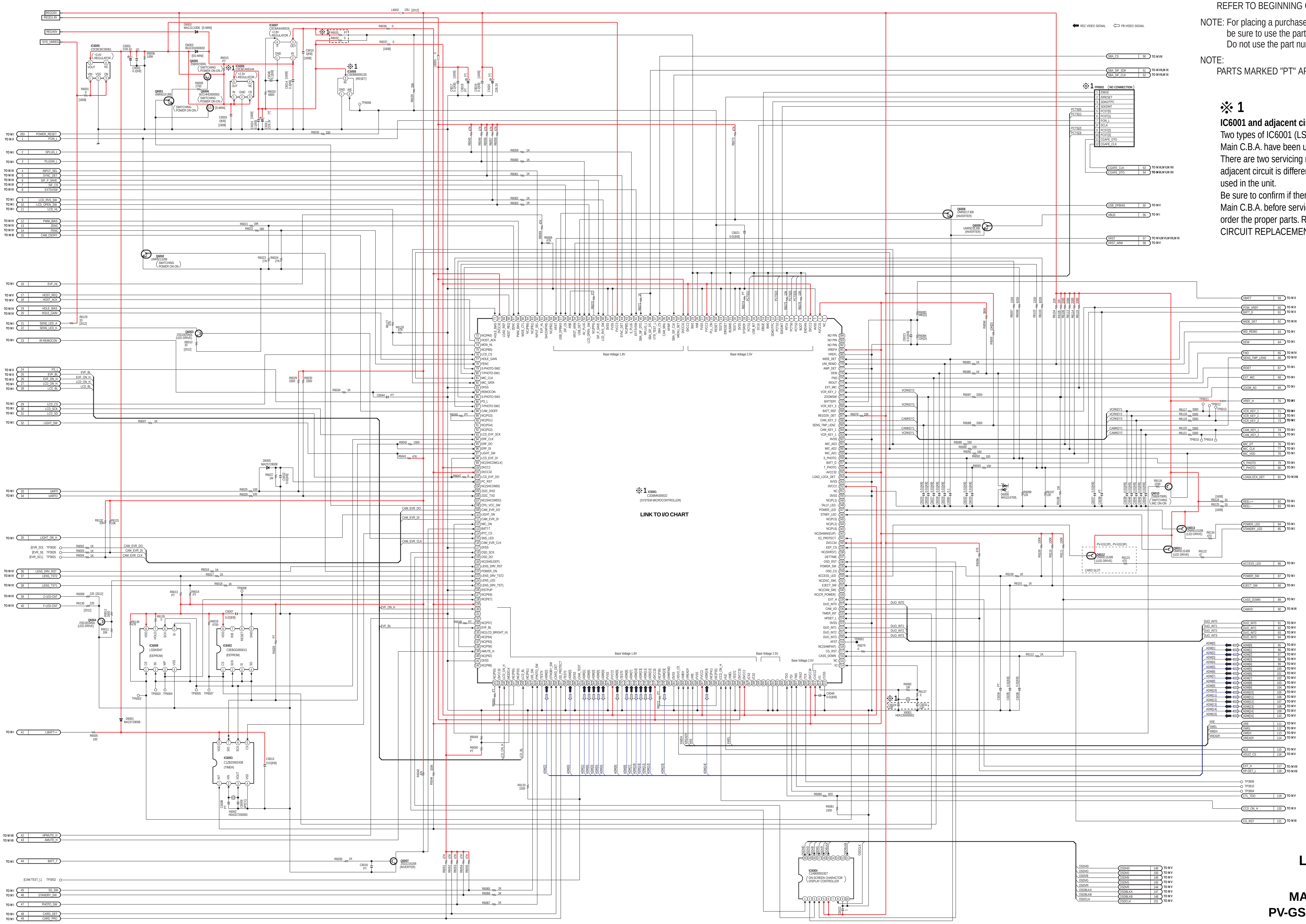


TO MECHANISM FPC FP1
8 D_GND
7 POS1 — POS1 232 TO M VI
6 POS2 — POS2 231 TO M VI
5 POS3 — POS3 230 TO M VI
4 M_UNLOAD
3 M_UNLOAD — M_UNLOAD 255 TO M VIII
2 M_LOAD
1 M_LOAD — M_LOAD 256 TO M VIII
TO SUB MECHANISM FPC FP2
18 NC
17 S_TAB — S_TAB 233 TO M VI
16 MIC_CLK — MIC_CLK 77 TO M II
15 MIC_DT — MIC_DT 76 TO M II
14 MIC_VDD — MIC_VDD 78 TO M II
13 D_GND
12 C_DOWN — CASS_DOWN 89 TO M II
11 SENS_LED_K — SENS_LED_K 22 TO M II
10 SENS_LED_A — SENS_LED_A 21 TO M II
9 VH- — REEL-- 83 TO M II
8 TREEL[-] — TREEL+ 260 TO M VIII
7 TREEL[+] — TREEL- 259 TO M VIII
6 VH+ — REEL++ 82 TO M II
5 SREEL[+] — SREEL+ 258 TO M VIII
4 SREEL[-] — SREEL- 257 TO M VIII
3 S_PHOTO — S_PHOTO 79 TO M II
2 REGD3V — REGD3V
1 T_PHOTO — T_PHOTO 80 TO M II
TO JACK C.B.A. FP7001 FP7
TP3914 TP3913
1 EJECT_SW — EJECT_SW 88 TO M II
2 EXT_MIC_L — INT_MIC_L2 246 TO M VII
3 AV_GND
4 EXT_MIC_R — INT_MIC_R2 245 TO M VII
5 AV_GND
6 EXT_MIC_IN_L — EXT_MIC 68 TO M II
7 AUDIO_L/HP_L — A_L/HP_L 242 TO M VII
8 REGA5V — REGD5V
9 VIDEO/HP_R — V/HP_R 244 TO M VII
10 AV_DET_L — PLUGIN_L 3 TO M II
11 AUDIO_R/GND — A_R/GND 243 TO M VII
12 WIRE_REMO — WD_REMO 63 TO M II
13 AV_GND
14 AV_GND
15 TPA- — TPA- 213 TO M V
16 TPB- — TPB- 215 TO M V
17 TPA+ — TPA+ 212 TO M V
18 TPB+ — TPB+ 214 TO M V
19 USB_GND
20 D- — D- 153 TO M V
21 D+ — D+ 152 TO M V
22 VBUS — VBUS 56 TO M II
23 AV_GND
24 S_C_IN/OUT — C_IN/OUT 247 TO M VII
25 S_DET_L — SPLUG_L 2 TO M II
26 S_Y_IN/OUT — Y_IN/OUT 248 TO M VII
27 NC
28 LIBATT++ — LIBATT++ 41 TO M II
TP3902
(TO REAR C.B.A.) FP1201
14 GND
13 GND
12 GND
11 GND
10 GND
9 GND
8 BATT_DET — BATT_D 61 TO M X
7 BATT_TMP — BATT_T 261 TO M X
6 UNREG_DRV — TP3903
5 UNREG_DRV
4 UNREG_DRV — UNREG_DRIVE
3 UNREG — TP3901
2 UNREG
1 UNREG — UNREG_POW
TO M VII 241 INT_MIC_R1
TO M VII 240 INT_MIC_L1
TO M II 35 LIGHT_ON_H
LIGHT_REG
TO M II 23 IR-REMOCON
TO M II 67 IRDET
TP3912 TP3911
TO M II 64 DEW
TO M II 87 POWER_SW
TO M II 46 STANDBY_SW
TO M II 74 CAM_KEY_1
TO M II 84 POWER_LED
TO M II 85 STANDBY_LED
TO M II 45 SS_SW
TO M II 47 PHOTO_SW
TO M II 69 ZOOM_AD
TO M II 70 VREF_H
TO M II 49 CARD_PRO
TO M II 48 CARD_DET
TO M V 142 SDDATA1
TO M V 143 SDDATA0
TO M V 138 SD_CLK
REGD3.2V
TO M V 139 CMD_O
TO M V 140 SDDATA3
TO M V 141 SDDATA2
TO M II 283 POWER_RESET
TO M II 32 LIGHT_SW
TO M II 72 VCR_KEY_2
TO M II 73 VCR_KEY_3
TO M II 71 VCR_KEY_1
TO M II 75 CAM_KEY_2
TO M II 10 LCD_OPEN_SW
TO M VII 249 SPOUT1
TO M VII 250 SPOUT2
TO M II 86 ACCESS_LED
FP6 TO FRONT C.B.A. FP6501
1 REGA5V
2 A_M_OUT_R
3 D_GND
4 A_M_OUT_L
5 D_GND
6 LED_GND
7 LED_GND
8 LIGHT_ON_H
9 LIGHT_REG
10 LIGHT_REG
11 IR_REMOCON
12 IRDET
FP10 TO SIDE CASE L UNIT
18 DEW
17 NC
16 POWER_SW
15 NC
14 STANDBY_SW
13 GND
12 NC
11 MODE_VDD
10 CAM_KEY_1
9 POWER_LED
8 GND(LED)
7 STANDBY_LED
6 S/S_SW
5 PHOTO_SW
4 GND
3 VREF_L(WIDE)
2 ZOOM_COM
1 VREF_H(TELE)
FP12 TO SIDE CASE R UNIT
PV-GS9PL
12 RESET
11 GND
10 LIGHT_SW
9 VCR_KEY_3
8 VCR_KEY_2
7 VCR_KEY_1
6 OPE_VDD
5 CAM_KEY_2
4 GND
3 LCD_OPEN
2 SP+
1 SP-
FP11 TO SIDE CASE R UNIT
PV-GS12PL, PV-GS15PL
26 GND
25 CARD_PRO
24 CARD_DET
23 CARD_D1
22 CARD_D0
21 CARD_CLK
20 DSC315V
19 GND
18 CARD_CMD
17 CARD_D3
16 CARD_D2
15 GND
14 GND
13 RESET
12 GND
11 LIGHT_SW
10 VCR_KEY_3
9 VCR_KEY_2
8 VCR_KEY_1
7 OPE_VDD
6 CAM_KEY_2
5 GND
4 LCD_OPEN
3 SP+
2 SP-
1 ACCESS_LED
FP8 (TO LCD SW)
1 A_GND
2 A_GND
3 A_GND
4 VCOM
5 LCD_-15V — LCD_15V
6 LCD_ON_H — TO M II 27 LCD_ON_H
7 LCD_3V — LCD_3V
8 LCD_M_B
9 LCD_M_G
10 LCD_M_R
11 LCD_12V — LCD_12V
12 LCD_B — TO M V 178 LCD_BOUT
13 LCD_G — TO M V 179 LCD_GOUT
14 LCD_R — TO M V 180 LCD_ROUT
15 HSYNC — TO M V 176 LCDHD
16 VSYNC — TO M V 177 LCDVBLK
17 LCD_HL — TO M II 11 LCD_HL
18 BL_CONT — TO M II 28 LCD_BL
19 FRP — TO M V 175 LCDPOL
20 LCD_5V — LCD_5V
21 LCD_5V
22 DATA — TO M II 31 LCD_SD
23 CLK — TO M II 30 LCD_SCK
24 LOAD — TO M II 29 LCD_CS
25 GND
26 LCD_RVS — TO M II 9 LCD_RVS_SW
TP3921 TP3922
B2 TO INTERFACE BOARD (FOR EVR ADJUSTMENT)
1 NC
2 MON_E_R_OUT — TO M XI 265 EVF_M_R
3 MON_E_G_OUT — TO M XI 264 EVF_M_G
4 MON_E_B_OUT — TO M XI 263 EVF_M_B
5 MON_E_VCOM — TO M XI 262 EVF_M_COM
6 CAM_AGND
7 UARTI — TO M II 33 UARTI
8 UARTO — TO M II 34 UARTO
9 SYSTEMRST — TO M II 283 POWER_RESET
10 MIC_DT
11 MIC_CLK
12 REGA5V
13 ATFI — TO M VI 235 ATFI
14 ENVELOPE — TO M VI 236 HA_OUT
15 HID1 — TO M VI 234 HID
16 MON_M_R_OUT
17 MON_M_G_OUT
18 MON_M_B_OUT
19 MON_M_PLL
20 MON_M_VCOM
FP9 TO EVF BACKLIGHT FP951
22 EVF_BL_5V — EVF_BL_5V
21 EVF_HL — TO M II 16 EVF_HL
20 EVF_COM — TO M XI 282 EVF_COM
19 EVF_CKV1 — TO M XI 268 EVF_CKV1
18 EVF_CKV2 — TO M XI 269 EVF_CKV2
17 EVF_STV — TO M XI 266 EVF_STV
16 EVF_XSTV — TO M XI 267 EVF_XSTV
15 EVF_XENB — TO M XI 271 EVF_XENB
14 EVF_ENB — TO M XI 270 EVF_ENB
13 EVF_CKH2 — TO M XI 275 EVF_CKH2
12 EVF_XDSG — TO M XI 277 EVF_XDSG
11 EVF_DSG — TO M XI 276 EVF_DSG
10 EVF_B — TO M XI 280 EVF_B
9 EVF_R — TO M XI 278 EVF_R
8 EVF_G — TO M XI 279 EVF_G
7 EVF_VDD — EVF_8.5V
6 EVF_DSD — TO M XI 281 EVF_DSD
5 EVF_CKH1 — TO M XI 274 EVF_CKH1
4 EVF_VSS
3 EVF_VSS
2 EVF_STH — TO M XI 272 EVF_STH
1 EVF_XSTH — TO M XI 273 EVF_XSTH

LINK TO VOLTAGE CHART

LSJB8262
MAIN I SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN II SCHEMATIC DIAGRAM


IC6001
C2DBMK000022
(SYSTEM MICROCONTROLLER)
LINK TO I/O CHART
IC6002
C3EBEG000013
(EEPROM)
IC6003
C1ZBZ0002438
(TIMER)
IC6004
C1ABG0001927
(ON-SCREEN CHARACTER DISPLAY CONTROLLER)
IC6005
C0CBCBC00061
REGULATOR
IC6006
C0CBCAD00144
REGULATOR
IC6007
C0CBAAA00016
REGULATOR
IC6008
C0EBB0000135
(RESET)
IC6009
LSSK0047
(EEPROM)
FP6001 (NO CONNECTION)
Q6001
Q6002
Q6003
Q6004
Q6005
Q6006
Q6007
Q6008
Q6009
Q6010
Q6011
Q6012
Q6013
REC VIDEO SIGNAL
PB VIDEO SIGNAL
Base Voltage 1.8V
Base Voltage 2.5V
CARD SLOT
PV-GS12PL, PV-GS15PL
(SWITCHING POWER ON-ON)
(INVERTER)
(LED DRIVE)
(MIC ON-ON)

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

※ 1

IC6001 and adjacent circuit replacement note:

Two types of IC6001 (LSSK0045, C2DBMK000022) on the Main C.B.A. have been used on a running change basis. There are two servicing methods (Type A, B) because the adjacent circuit is different depending on which IC6001 is used in the unit.

Be sure to confirm if there is the connector (FP6001) on the Main C.B.A. before servicing. When replacing, be sure to order the proper parts. Refer to "IC6001 AND ADJACENT CIRCUIT REPLACEMENT NOTE" in SERVICE NOTES.

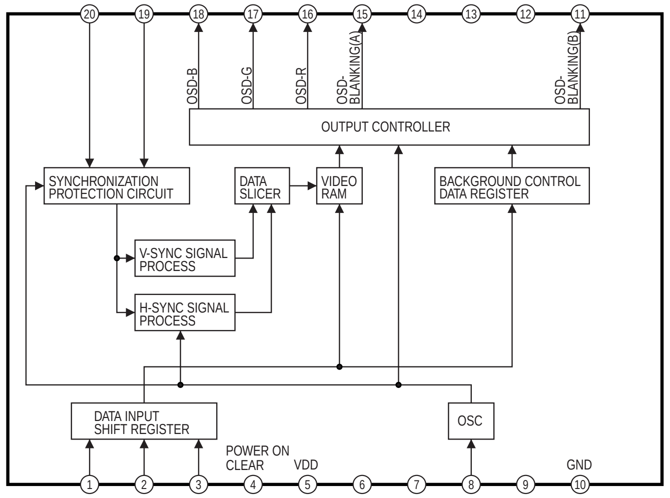
LINK TO VOLTAGE CHART

LSJB8262
MAIN II SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

I/O CHART OF IC6001

Pin No.	I/O	Signal Name	Description
1	---	NC	(Not used)
2	I	AVCC31	+2.8V
3	---	AVSS	Ground
4	I	DVCC2	+2.4V
5	---	ENDIAN	(Not used)
6	---	BOOT	(Not used)
7	---	PCTS3	(Not used)
8	---	PCTS0	(Not used)
9	---	INTLV	(Not used)
10	---	SDI DINT	(Not used)
11	---	PCTS2	(Not used)
12	---	SDAO TPC	(Not used)
13	---	BW0	(Not used)
14	---	/DBGE	(Not used)
15	---	DCLK	(Not used)
16	---	USB INT	(Not used)
17	---	PCTS1	(Not used)
18	---	SYSRDY	(Not used)
19	---	DVSS	Ground
20	---	TEST1	(Not used)
21	---	BUSMD	(Not used)
22	---	/DRESET	(Not used)
23	---	TEST5	(Not used)
24	I	RESET	Reset : Low
25	---	PLL ON	(Not used)
26	I	FVCC2	+2.4V
27	---	FVSS	Ground
28	---	NMI	(Not used)
29	---	BW1	(Not used)
30	I	DVCC2	+2.4V
31	I	DVCC31	+1.8V
32	---	NC	(Not used)
33	O	SBA SIF CLK	Sub Audio / SIF Serial Clock
34	---	NC	(Not used)
35	---	NC	(Not used)
36	O	SBA CS	Sub Audio Chip Select
37	---	VTR TEST L	(Not used)
38	I	SBA SIF DTI	Sub Audio / SIF Serial Data
39	---	RPLUG L	(Not used)
40	O	SBA SIF DTO	Sub Audio / SIF Serial Data
41	O	EXT5VSW	Power Save : Low
42	I	S PLUG	S-Video In Defect : Low
43	---	NC	(Not used)
44	I	SYNC DET	Sync Defect
45	I	FVCC3	+3.4V
46	---	FVSS	Ground
47	---	DVSS	Ground
48	I	LCD RVS SW	LCD Reverse : Low
49	O	SIF P SAVE	IC3501 Power Save
50	---	BRIGHT ON	(Not used)
51	I	LCD OPEN SW	LCD Open : Low
52	I	AV PLUG	A/V Input Detect : Low
53	I	USB DET	USB Input Detect : Low
54	O	XRST ARM	IC3501 Reset
55	---	ARB	(Not used)
56	O	SIF CS	IC3501 Chip Select
57	O	USB DPBIAS	USB Bias Addition
58	O	XRST	Reset : Low
59	---	NC	(Not used)
60	---	SHCOMTRG	(Not used)
61	---	EVF HL	(Not used)
62	O	INPUT SEL	A/V Input Select
63	---	SHM BOOTREQ	(Not used)
64	---	NC	(Not used)
65	---	NC	(Not used)
66	O	PWM BIAS	PWM Bias Control
67	I	ZENC	Zoom Encoder
68	---	HOST REQ	(Not used)
69	---	NC	(Not used)
70	I	DVCC32	+2.8V
71	O	HOLE BIAS	Hall Bias Control
72	---	NC	(Not used)
73	---	HOST ACK	(Not used)
74	---	MON HL	(Not used)
75	---	NC	(Not used)
76	O	LCD CS	LCD Chip Select
77	O	HOLE GAIN	Hall Amp Gain Control
78	I	FENC	Focus Encoder
79	O	S-PHOTO-SW2	Supply Photo TR Switch 2
80	O	T-PHOTO-SW1	Takeup Photo TR Switch 1
81	O	MIC CLK	MIC Serial Clock
82	I/O	MIC DATA	MIC Serial Data
83	---	DVSS	Ground
84	I	REMOCON	IR Remote Control Data
85	O	S-PHOTO-SW1	Supply Photo TR Switch 1
86	O	PS L	Power Save : Low
87	O	T-PHOTO-SW2	Takeup Photo TR Switch 2
88	---	CAM D3OFF	(Not used)
89	---	NC	(Not used)
90	---	NC	(Not used)
91	---	NC	(Not used)
92	---	NC	(Not used)
93	O	LCD SCK	LCD Serial Clock
94	O	ERF CLK	Serial Clock
95	O	ERF DO	Serial Data 0
96	I	ERF DI	Serial Data 1
97	I	LIGHT SW	Light SW On : Low
98	I	LCD DI	LCD Serial Data
99	---	SHCOMCLK	(Not used)
100	I	DVCC2	+2.4V
101	I	DVCC32	+2.8V
102	O	LCD DO	LCD Serial Data
103	I	PC RST	RS-232C Reset
104	---	SHCOMDI	(Not used)
105	I	232C RXD	RS-232C Received Data
106	O	232C TXD	RS-232C Transmitted Data
107	---	SHCOMDO	(Not used)
108	O	CPU VCC SW	IC6001 Power On : High
109	---	CAM EVR DO	(Not used)
110	O	LIGHT ON	Light On : High
111	---	CAM EVR DI	(Not used)
112	O	MIC ON	MIC Power On : Low
113	I	BATT-T	Battery Temperature Detect
114	O	RTC CS	Timer Chip Select
115	O	SNS LED	Sensor LED On : High
116	---	CAM EVR CLK	(Not used)
117	---	DVSS	Ground
118	O	OSD SCK	OSD Serial Clock
119	O	OSD DO	OSD Serial Data
120	---	SHSLEEP	(Not used)
121	O	LENS DRV RST	IC701 Reset
122	O	POWER ON	Power On : High
123	O	LENS DRV TST2	Lens Drive Test 2
124	O	LENS LED	LED Control
125	O	LENS DRV TST1	Lens Drive Test 1
126	---	RSTPUP	(Not used)
127	O	NC(PE6)	EEPROM Write Protect
128	O	NC(PE7)	EEPROM Write Enable
129	I	DVCC32	+2.8V
130	O	EVF ON H	EVF Power On : High
131	---	NC	(Not used)
132	---	HPMUTE H	(Not used)
133	---	NC	(Not used)
134	O	EVF BL	EVF Backlight On : High
135	---	LCD BRIGHT H	(Not used)
136	---	NC	(Not used)
137	---	NC	(Not used)
138	---	NC	(Not used)
139	---	NC	(Not used)
140	---	NC	(Not used)
141	---	DVSS	Ground
142	---	NC	(Not used)
143	---	NC	(Not used)
144	I	DVCC33	+1.8V
145	O	LCD ON H	LCD Power On : High
146	---	MODE14	(Not used)
147	---	NC	(Not used)
148	---	NC	(Not used)
149	O	LCD BL	LCD Backlight On : High
150	---	NC	(Not used)
151	I	S/S SW	REC / Pause SW On : Low
152	I	PHOTO SW	Photo SW On : Low
153	---	TEST4	(Not used)
154	I/O	ADM[2]	Address / Data 2
155	I	STNDBY SW	Standby SW On : Low
156	I	CARD DET	SD Card Detect
157	I	SD PROTECT	SD Card Protect
158	---	TEST3	(Not used)
159	I/O	ADM[0]	Address / Data 0
160	---	DVSS	Ground
161	---	CAM TEST	(Not used)
162	I/O	ADM[1]	Address / Data 1
163	I/O	ADM[6]	Address / Data 6
164	I/O	ADM[3]	Address / Data 3
165	I/O	ADM[5]	Address / Data 5
166	I/O	ADM[4]	Address / Data 4
167	---	FVSS	Ground
168	I	FVCC2	+2.4V
169	I/O	ADM[9]	Address / Data 9
170	---	TEST0	(Not used)
171	I/O	ADM[8]	Address / Data 8
172	I/O	ADM[7]	Address / Data 7
173	I/O	ADM[10]	Address / Data 10
174	I/O	ADM[13]	Address / Data 13
175	I/O	ADM[11]	Address / Data 11
176	I/O	ADM[12]	Address / Data 12
177	I	DVCC33	+1.8V
178	---	NC	(Not used)
179	I/O	ADM[15]	Address / Data 15
180	---	SHMFIMD	(Not used)
181	---	DVSS	Ground
182	O	XDUO CS	IC3001 Chip Select
183	O	XWEH	Write Enable : Low
184	O	XREADY	Ready : Low
185	O	XRE	Read Enable : Low
186	---	FVSS	Ground
187	I	FVCC2	+2.4V
188	I/O	ADM[14]	Address / Data 14
189	---	NC	(Not used)
190	---	NC	(Not used)
191	O	CCD ON H	CCD Power On : High
192	O	ALE	Latch Enable
193	O	XWEL	White Enable : Low
194	---	TEST2	(Not used)
195	I	DVCC33	+1.8V
196	I	DVCC2	+2.4V
197	---	NC	(Not used)
198	---	NC	(Not used)
199	---		(Not used)
200	---	XT1	(Not used)
201	---	CVCCH	(Not used)
202	---	CAP1	(Not used)
203	---	CAP2	(Not used)
204	---	XT2	(Not used)
205	O	TDO	Test Data
206	I	TDI	Test Data
207	I	TMS	Test Mode Select
208	---	TRST	(Not used)
209	I	TCK	Test Clock
210	I	DVCC34	+2.8V
211	I	CVCC2	+2.4V
212	I	X1	13.5MHz Clock
213	---	CVSS	Ground
214	O	X2	13.5MHz Clock
215	---	NC	(Not used)
216	I	CASS DOWN	Cassette Down : Low
217	O	CG RST	IC302 Reset
218	---	SHMFINT	(Not used)
219	---	AFST	(Not used)
220	I	DUO INT3	IC3001 Interrupt 3
221	I	DUO INT2	IC3001 Interrupt 2
222	I	DUO INT1	IC3001 Interrupt 1
223	---	DVSS	Ground
224	I	HPDET L	Headphone Detect : Low
225	I	TIMER INT	Timer Interrupt
226	I	CAMVD	Camera V-sync
227	I	DUO INT0	IC 3001 Interrupt 0
228	O	EXT H	Ext Input Select : High
229	---	CR POWER	(Not used)
230	---	NC	(Not used)
231	I	EJECT SW	Eject SW On : Low
232	---	NC	(Not used)
233	O	ACCESS LED	Access LED On : Low
234	O	OSD CS	OSD Chip Select
235	I	POWER SW	Power SW On : Low
236	O	OSD RST	OSD Reset : Low
237	---	NC	(Not used)
238	---	SHRST	(Not used)
239	O	EEP CS	IC 6002 Chip Select
240	I	DVCC34	+2.8V
241	O	FLASH CE	IC 6009 Chip Select
242	---	SHWAKEUP	(Not used)
243	---	NC	(Not used)
244	---	NC	(Not used)
245	---	NC	(Not used)
246	O	STNDBY LED	Standby LED On : Low
247	O	POWER LED	Power LED On : Low
248	---	TALLY LED	(Not used)
249	---	NC	(Not used)
250	---	DVSS	Ground
251	---	NC	(Not used)
252	I	DVCC2	+2.4V
253	---	AVSS	Ground
254	I	LOAD LOCK DET	Loading Lock Detect
255	I	AVCC32	+2.8V
256	I	T PHOTO	Takeup Photo TR On : Low
257	I	BATT D	Battery Detect
258	I	S PHOTO	Supply Photo TR On : Low
259	I	MIC AD1	MIC On : High
260	I	MIC AD2	MIC Serial Clock
261	I	MIC AD3	MIC Serial Data
262	---	AVSS	Ground
263	I	VCR KEY 1	VCR Key Data 1
264	I	CAM KEY 1	Camera Key Data 1
265	I	SENSE TMP LENS	Lens Temperature Sensor
266	I	CAM KEY 2	Camera Key Data 2
267	I	REGD3V DET	+3V Detect
268	I	BATT REF	V-Ref for Battery
269	I	VCR KEY 3	VCR key Data 3
270	I	BATTERY	Battery Voltage Detect
271	I	ZOOMSW	Zoom SW Data
272	I	VCR KEY 2	VCR Key Data 2
273	I	EXT MIC	EXT MIC In Detect : Low
274	I	IROUT	IR Detect
275	I	FNO	F Number
276	I	DEW	Dew Sensor
277	---	AWP DET	(Not used)
278	I	UNI REMO	Wired Remote Control Data
279	I	WIDE DET	Wide Detect
280	---	VREFL	V-Ref Low (0V)
281	I	VREFH	V-Ref High (+2.8V)
282	---	NO PIN	(Not used)
283	---	NO PIN	(Not used)
284	---	NO PIN	(Not used)

IC6004 IC- DETAIL BLOCK DIAGRAM

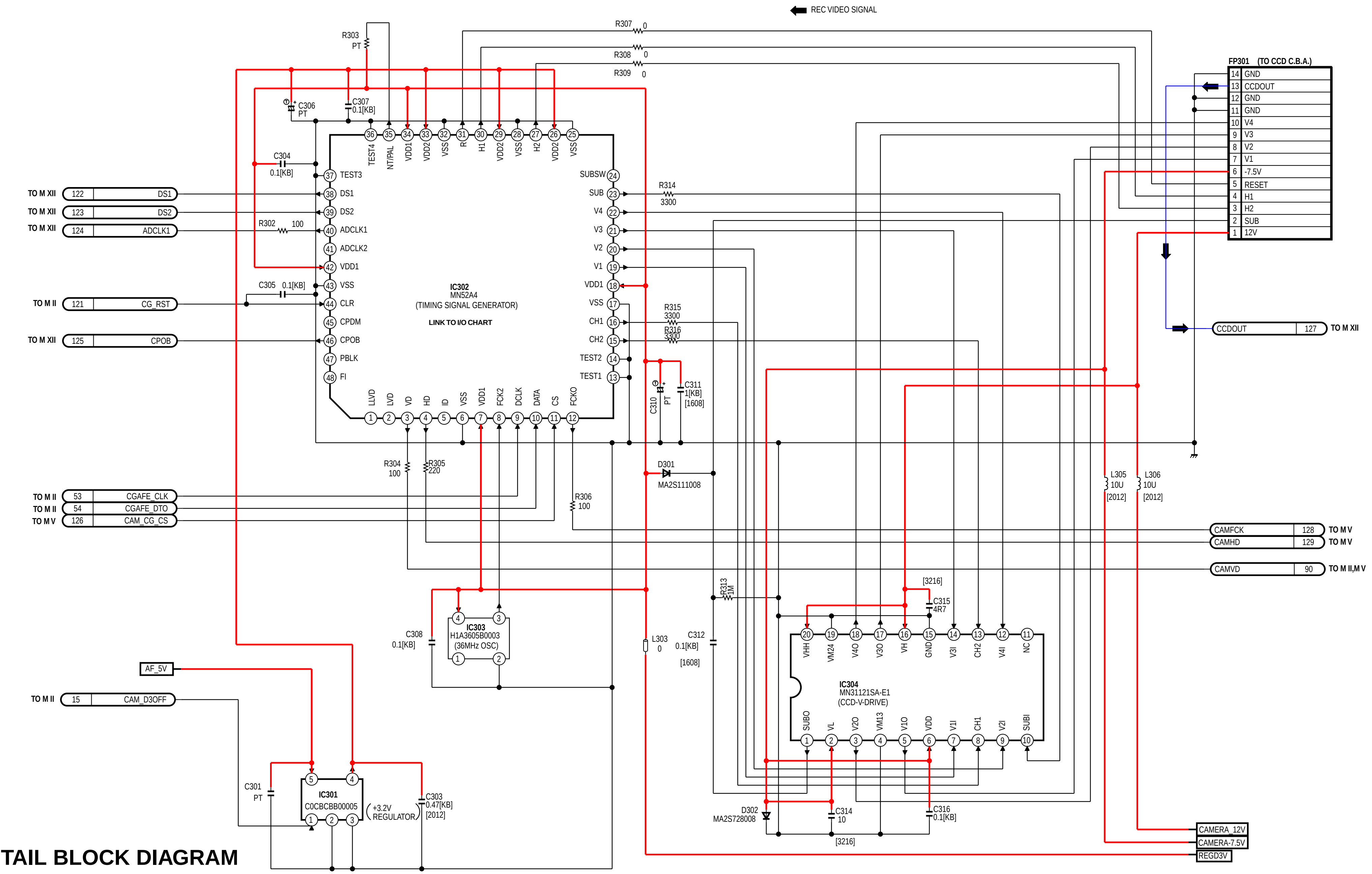


MAIN III SCHEMATIC DIAGRAM

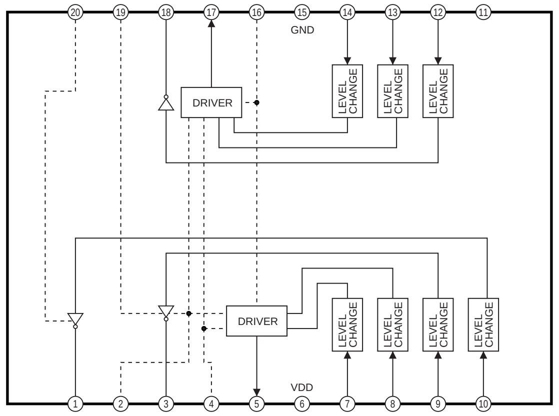
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC VIDEO SIGNAL
R303 PT
R307 0
R308 0
R309 0
C306 PT
C307 0.1[KB]
C304 0.1[KB]
C305 0.1[KB]
R302 100
TO M XII 122 DS1
TO M XII 123 DS2
TO M XII 124 ADCLK1
TO M II 121 CG_RST
TO M XII 125 CPOB
TEST4
NT/PAL
VDD1
VDD2
VSS
R
H1
VDD2
VSS
H2
VDD2
VSS
TEST3
DS1
DS2
ADCLK1
ADCLK2
VDD1
VSS
CLR
CPDM
CPOB
PBLK
FI
SUBSW
SUB
V4
V3
V2
V1
VDD1
VSS
CH1
CH2
TEST2
TEST1
LLVD
LVD
VD
HD
ID
VSS
VDD1
FCK2
DCLK
DATA
CS
FCKO
IC302
MN52A4
(TIMING SIGNAL GENERATOR)
LINK TO I/O CHART
R314 3300
R315 3300
R316 3300
C310 PT
C311 1[KB] [1608]
D301 MA2S111008
R304 100
R305 220
R306 100
TO M II 53 CGAFE_CLK
TO M II 54 CGAFE_DTO
TO M V 126 CAM_CG_CS
FP301 (TO CCD C.B.A.)
14 GND
13 CCDOUT
12 GND
11 GND
10 V4
9 V3
8 V2
7 V1
6 -7.5V
5 RESET
4 H1
3 H2
2 SUB
1 12V
CCDOUT 127 TO M XII
L305 10U [2012]
L306 10U [2012]
CAMFCK 128 TO M V
CAMHD 129 TO M V
CAMVD 90 TO M II,M V
C308 0.1[KB]
IC303
H1A3605B0003
(36MHz OSC)
L303 0
C312 0.1[KB] [1608]
R313 1M
[3216]
C315 4R7
VHH
VM24
V4O
V3O
VH
GND
V3I
CH2
V4I
NC
IC304
MN31121SA-E1
(CCD-V-DRIVE)
SUBO
VL
V2O
VM13
V1O
VDD
V1I
CH1
V2I
SUBI
D302 MA2S728008
C314 10
[3216]
C316 0.1[KB]
AF_5V
TO M II 15 CAM_D3OFF
C301 PT
IC301
C0CBCBB00005
(+3.2V REGULATOR)
C303 0.47[KB] [2012]
CAMERA_12V
CAMERA-7.5V
REGD3V

IC304 IC- DETAIL BLOCK DIAGRAM


20
19
18
17
16
15
14
13
12
11
GND
DRIVER
LEVEL CHANGE
LEVEL CHANGE
LEVEL CHANGE
DRIVER
LEVEL CHANGE
LEVEL CHANGE
LEVEL CHANGE
LEVEL CHANGE
1
2
3
4
5
6
7
8
9
10
VDD

I/O CHART OF IC302

Pin No.	I/O	Signal Name	Description
1	-	LLVD	(Not used)
2	-	LVD	(Not used)
3	O	VD	V-sync pulse
4	O	HD	H-sync pulse
5	-	ID	(Not used)
6	-	VSS	Ground
7	I	VDD1	+3.0V
8	I	FCK2	2FCK clock (36MHz)
9	I	DCLK	TG serial clock
10	I	DATA	TG serial data
11	I	CS	TG chip select : low
12	O	FCK0	FCK clock (18MHz)
13	-	TEST1	(Not used)
14	-	TEST2	(Not used)
15	O	CH2	Charge pulse 2
16	O	CH1	Charge pulse 1
17	-	VSS	Ground
18	I	VDD1	+3.0V
19	O	V1	V1 pulse
20	O	V2	V2 pulse
21	O	V3	V3 pulse
22	O	V4	V4 pulse
23	O	SUB	Sub control pulse
24	-	SUBSW	(Not used)
25	-	VSS	Ground
26	I	VDD2	+3.2V
27	O	H2	H2 pulse
28	-	VSS	Ground
29	I	VDD2	+3.2V
30	O	H1	H1 pulse
31	O	R	Reset pulse
32	-	VSS	Ground
33	I	VDD2	+3.2V
34	I	VDD1	+3.0V
35	O	FCK6M	6MHz clock
36	-	TEST4	(Not used)
37	-	TEST3	(Not used)
38	O	DS1	Sampling pulse 1
39	O	DS2	Sampling pulse 2
40	O	ADCLK1	A/D clock 1
41	O	ADCLK2	A/D clock 2
42	I	VDD1	+3.0V
43	-	VSS	Ground
44	-	CLR	(Not used)
45	O	CPDM	Dummy clamp pulse
46	O	CPOB	Optical black clamp pulse
47	O	PBLK	Pre lanking pulse
48	-	FI	(Not used)

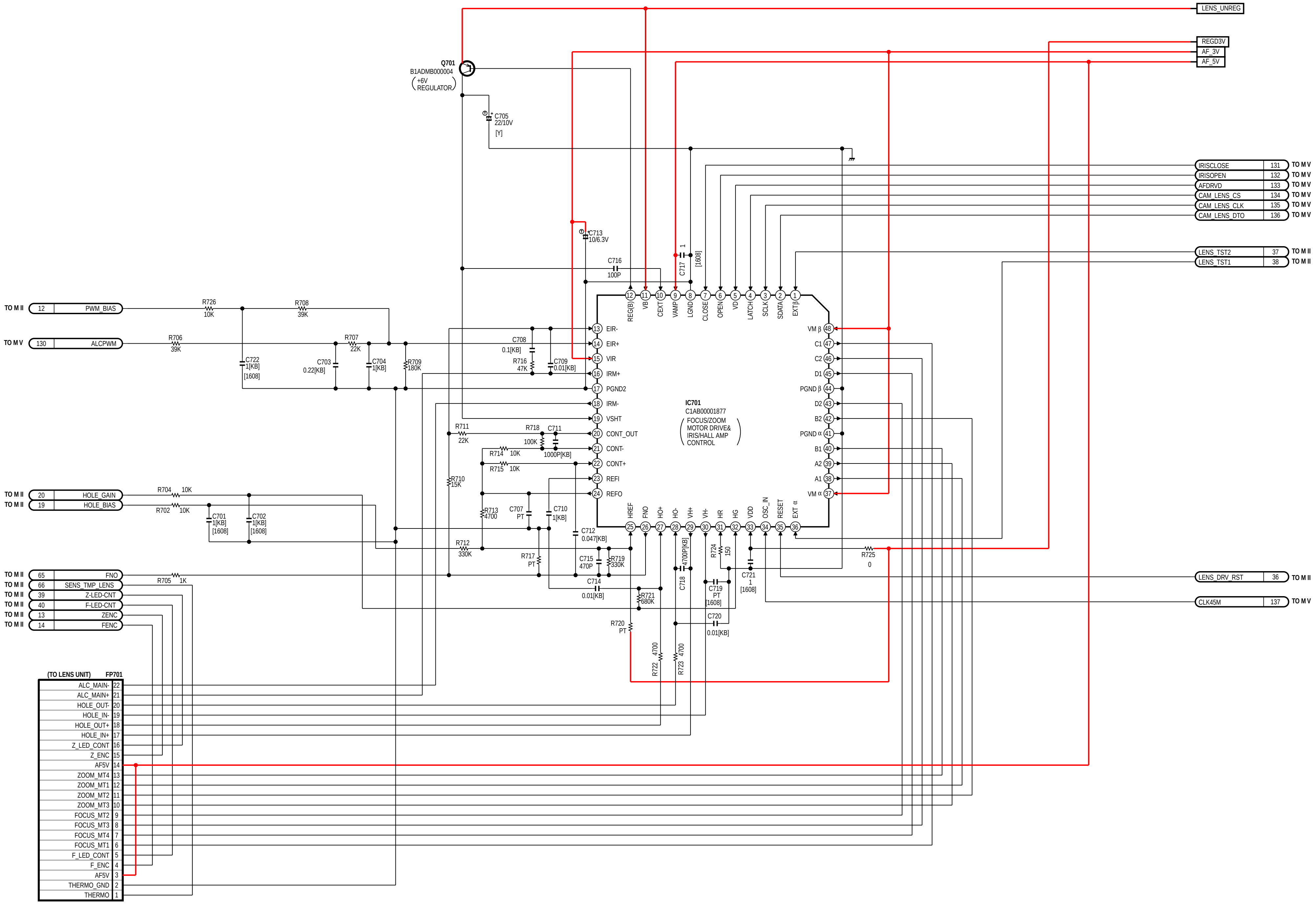
LINK TO VOLTAGE CHART

MAIN IV SCHEMATIC DIAGRAM

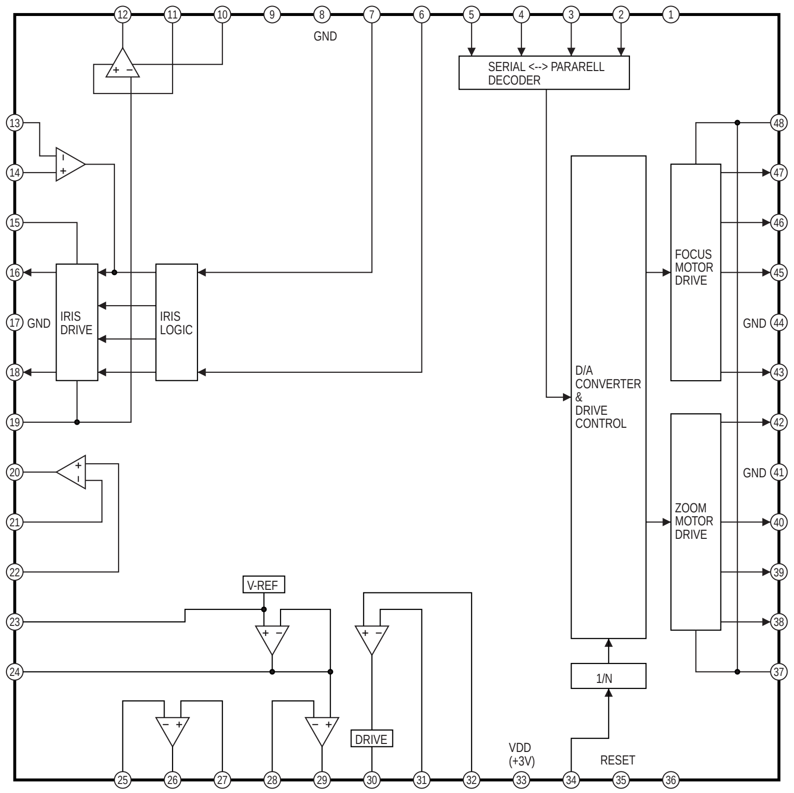
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


LENS_UNREG
REGD3V
AF_3V
AF_5V
Q701
B1ADMB000004
+6V REGULATOR
C705 22/10V [Y]
IRISCLOSE 131 TO M V
IRISOPEN 132 TO M V
AFDRVD 133 TO M V
CAM_LENS_CS 134 TO M V
CAM_LENS_CLK 135 TO M V
CAM_LENS_DTO 136 TO M V
LENS_TST2 37 TO M II
LENS_TST1 38 TO M II
C713 10/6.3V
C716 100P
C717 1 [1608]
TO M II 12 PWM_BIAS
TO M V 130 ALCPWM
R726 10K
R708 39K
R706 39K
R707 22K
C722 1[KB] [1608]
C703 0.22[KB]
C704 1[KB]
R709 180K
C708 0.1[KB]
R716 47K
C709 0.01[KB]
IC701
C1AB00001877
FOCUS/ZOOM MOTOR DRIVE& IRIS/HALL AMP CONTROL
REG(B) VB CEXT VAMP LGND CLOSE OPEN VD LATCH SCLK SDATA EXTβ
EIR- EIR+ VIR IRM+ PGND2 IRM- VSHT CONT_OUT CONT- CONT+ REFI REFO
VM β C1 C2 D1 PGND β D2 B2 PGND α B1 A2 A1 VM α
HREF FNO HO+ HO- VH+ VH- HR HG VDD OSC_IN RESET EXT α
R711 22K
R718 100K
C711 1000P[KB]
R714 10K
R715 10K
R710 15K
R713 4700
C707 PT
C710 1[KB]
C712 0.047[KB]
R712 330K
R717 PT
C715 470P
R719 330K
C714 0.01[KB]
C718 4700P[KB]
R724 150
C721 1 [1608]
C719 PT [1608]
C720 0.01[KB]
R721 680K
R720 PT
R722 4700
R723 4700
R725 0
TO M II 20 HOLE_GAIN
TO M II 19 HOLE_BIAS
R704 10K
R702 10K
C701 1[KB] [1608]
C702 1[KB] [1608]
TO M II 65 FNO
TO M II 66 SENS_TMP_LENS
TO M II 39 Z-LED-CNT
TO M II 40 F-LED-CNT
TO M II 13 ZENC
TO M II 14 FENC
R705 1K
LENS_DRV_RST 36 TO M II
CLK45M 137 TO M V
(TO LENS UNIT) FP701
ALC_MAIN- 22
ALC_MAIN+ 21
HOLE_OUT- 20
HOLE_IN- 19
HOLE_OUT+ 18
HOLE_IN+ 17
Z_LED_CONT 16
Z_ENC 15
AF5V 14
ZOOM_MT4 13
ZOOM_MT1 12
ZOOM_MT2 11
ZOOM_MT3 10
FOCUS_MT2 9
FOCUS_MT3 8
FOCUS_MT4 7
FOCUS_MT1 6
F_LED_CONT 5
F_ENC 4
AF5V 3
THERMO_GND 2
THERMO 1

IC701 IC- DETAIL BLOCK DIAGRAM


GND
SERIAL <--> PARARELL DECODER
GND
IRIS DRIVE
IRIS LOGIC
FOCUS MOTOR DRIVE
D/A CONVERTER & DRIVE CONTROL
GND
GND
ZOOM MOTOR DRIVE
V-REF
DRIVE
1/N
VDD (+3V)
RESET

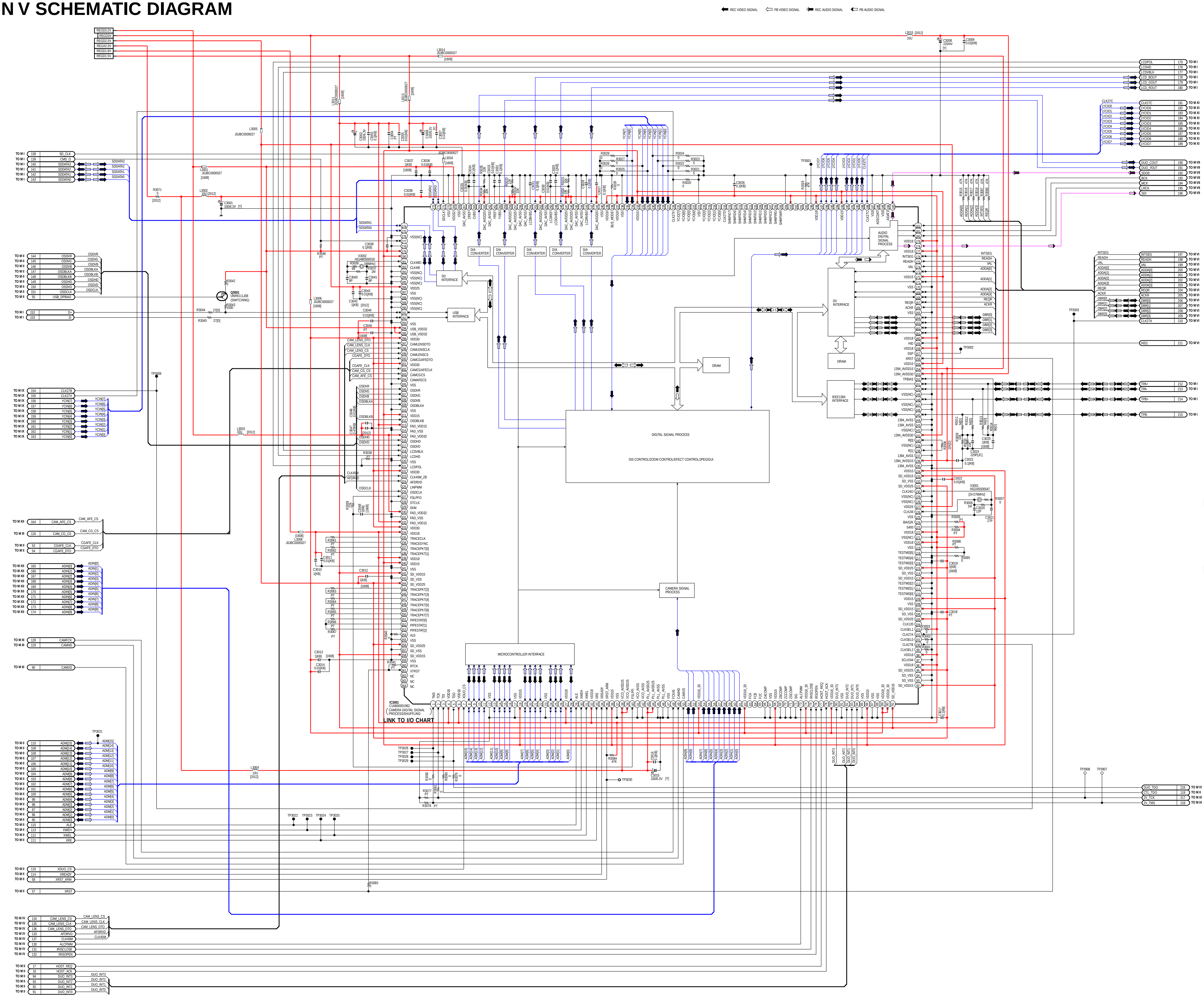
LINK TO VOLTAGE CHART

LSJB8262

MAIN IV SCHEMATIC DIAGRAM

PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN V SCHEMATIC DIAGRAM


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
D/A CONVERTER
SD INTERFACE
USB INTERFACE
AUDIO DIGITAL SIGNAL PROCESS
DV INTERFACE
DRAM
IEEE1394 INTERFACE
DIGITAL SIGNAL PROCESS
DIS CONTROL/ZOOM CONTROL/EFFECT CONTROL/JPEG/GUI
CAMERA SIGNAL PROCESS
MICROCONTROLLER INTERFACE
Q3001 UNR9111J0 (SWITCHING)
IC3001
C1AB00001962
(CAMERA DIGITAL SIGNAL PROCESS/SHUFFLING)
LINK TO I/O CHART

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

LINK TO VOLTAGE CHART

LSJB8262
MAIN V SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

I/O CHART OF IC3001

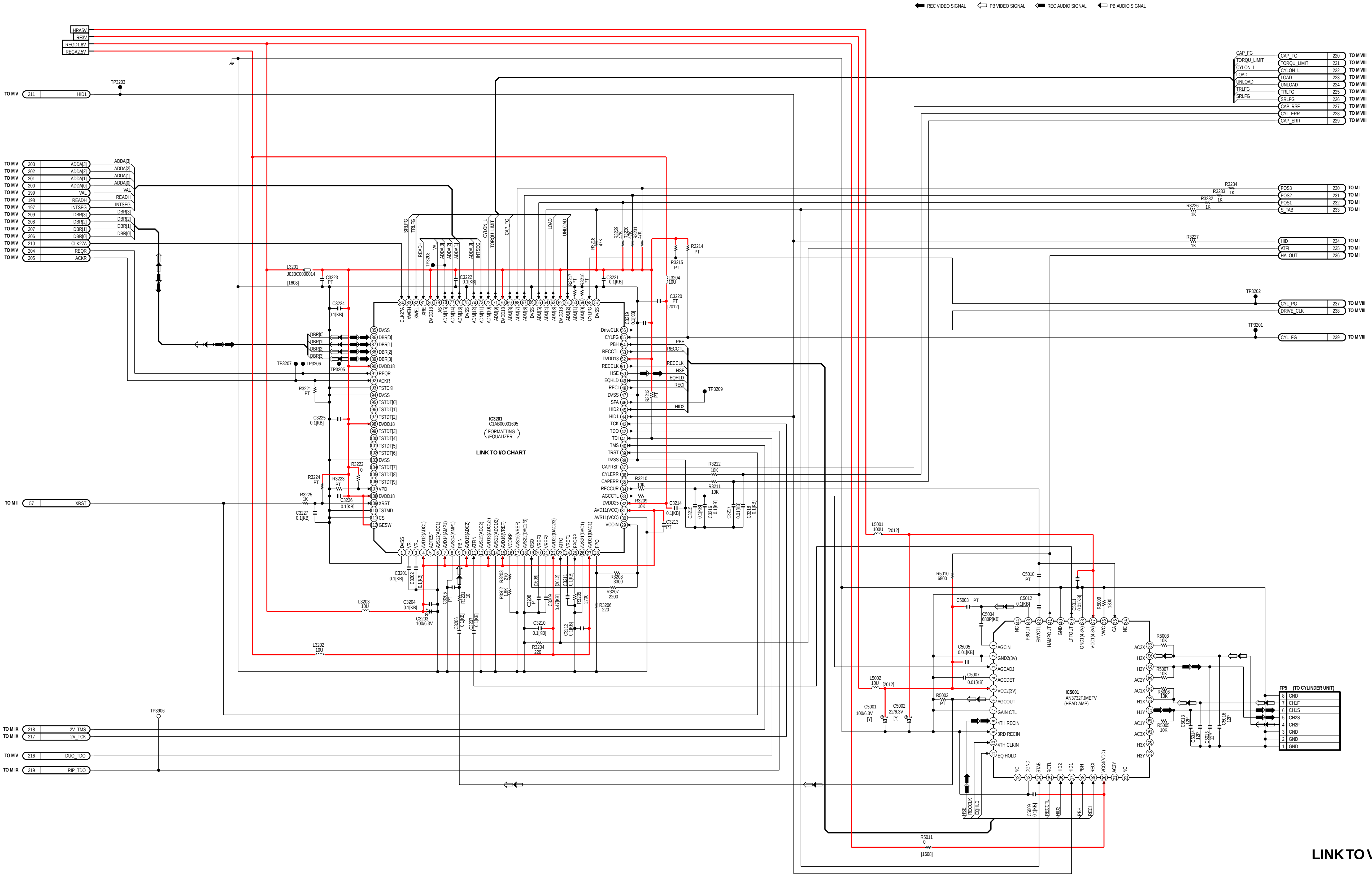
Pin No.	I/O	Signal Name	Description
1	I	TMS	Test Mode Select
2	I	TCK	Test Clock
3	I	TDI	Test Data
4	I	VDD18	+1.8V
5	O	TDO	Test Data
6	I	VDD18	+1.8V
7	I	XDUO CS	IC3001 Chip Select : Low
8	I/O	ADM(15)	Address / Data 15
9	I/O	ADM(14)	Address / Data 14
10	I/O	ADM(13)	Address / Data 13
11	I/O	ADM(12)	Address / Data 12
12	---	VSS	Ground
13	I/O	ADM(11)	Address / Data 11
14	I/O	ADM(10)	Address / Data 10
15	I/O	ADM(9)	Address / Data 9
16	I/O	ADM(8)	Address / Data 8
17	---	VSS	Ground
18	I	VDD15	+1.5V
19	I/O	ADM(7)	Address / Data 7
20	I/O	ADM(6)	Address / Data 6
21	I/O	ADM(5)	Address / Data 5
22	I/O	ADM(4)	Address / Data 4
23	---	VSS	Ground
24	I/O	ADM(3)	Address / Data 3
25	I/O	ADM(2)	Address / Data 2
26	I/O	ADM(1)	Address / Data 1
27	I	VDD18	+1.8V
28	I/O	ADM(0)	Address / Data 0
29	I	ALE	Latch Enable
30	I	XWEH	Write Enable:Low
31	I	XWEL	Write Enable:Low
32	I	VDD18	+1.8V
33	I	XRE	Read Enable:Low
34	I	XREADY	Ready:Low
35	I	XRST ARM	Reset:Low
36	I	VDD15	+1.5V
37	---	VSS	Ground
38	I	VCO AVDD25	+2.5V
39	I	VCO AVDD25	+2.5V
40	I	FSLPFI	FSPLL LPF In
41	---	VCO AVSS	Ground
42	---	VCO AVSS	Ground
43	I	PLL AVDD25	+2.5V
44	I	PLL AVDD25	+2.5V
45	---	PLL AVSS	Ground
46	---	PLL AVSS	Ground
47	---	VSS	Ground
48	I	FCK45	4.5MHz Clock
49	I	CAMHD	Camera HD Pulse
50	I	CAMVD	Camera VD Pulse
51	I	ADIN(9)	Camera Data 9
52	I	ADIN(8)	Camera Data 8
53	I	VDD18 30	+3.0V
54	I	ADIN(7)	Camera Data 7
55	I	ADIN(6)	Camera Data 6
56	I	ADIN(5)	Camera Data 5
57	I	ADIN(4)	Camera Data 4
58	I	ADIN(3)	Camera Data 3
59	I	ADIN(2)	Camera Data 2
60	I	ADIN(1)	Camera Data 1
61	I	ADIN(0)	Camera Data 0
62	I	VDD18 30	+3.0V
63	---	FXA	(Not used)
64	---	FCB	(Not used)
65	---	F2C	(Not used)
66	---	ZACOMP	(Not used)
67	---	VSS	Ground
68	I	VDD15	+1.5V
69	---	ZBCOMP	(Not used)
70	---	ZCCOMP	(Not used)
71	---	ZDCOMP	(Not used)
72	---	SIG	(Not used)
73	O	ALCPWM	ALC PWM Control
74	I	VDD18 30	+3.0V
75	O	IRISCLOSE	Iris Close Control
76	O	IRISOPEN	Iris Open Control
77	O	HOST REQ	Request for DMA
78	I	HOST ACK	Acknowledge for DMA
79	I	VDD18 30	+3.0V
80	O	DUO INT3	IC3001 Interrupt 3
81	---	VSS	Ground
82	O	DUO INT2	IC3001 Interrupt 2
83	O	DUO INT1	IC3001 Interrupt 1
84	O	DUO INT0	IC3001 Interrupt 0
85	---	VSS	Ground
86	I	VDD15	+1.5V
87	---	VSS	Ground
88	---	VSS	Ground
89	I	VDD18 30	+3.0V
90	I	VDD18 30	+3.0V
91	I	SD VDD15	+1.5V
92	I	SD VDD15	+1.5V
93	---	SD VSS	Ground
94	---	SD VSS	Ground
95	I	SD VDD25	+2.5V
96	I	VDD18	+1.8V
97	---	SCLK54I	(Not used)
98	I	VDD18	+1.8V
99	---	CLKSEL2	(Not used)
100	O	CLK27B	27MHz Clock
101	---	CLKSEL0	(Not used)
102	O	CLK27A	27MHz Clock
103	---	CLKSEL1	(Not used)
104	---	CLK135	(Not used)
105	I	SD VDD25	+2.5V
106	---	SD VSS	Ground
107	I	SD VDD15	+1.5V
108	---	VSS	Ground
109	I	SD VDD15	+1.5V
110	---	TESTMD(0)	(Not used)
111	---	TESTMD(1)	(Not used)
112	---	TESTMD(2)	(Not used)
113	I	SD VDD15	+1.5V
114	---	SD VSS	Ground
115	I	SD VDD25	+2.5V
116	---	TESTMD(3)	(Not used)
117	---	TESTMD(4)	(Not used)
118	---	TESTMD(5)	(Not used)
119	---	VSS	Ground
120	I	VDD18	+1.8V
121	---	VSS(NC)	Ground
122	I	VDD18	+1.8V
123	---	S400	(Not used)
124	---	BIAS2K	(Not used)
125	---	VSS	Ground
126	I	CLK24I	24.576MHz Clock
127	I	VDD25	+2.5V
128	---	VSS(NC)	Ground
129	---	VSS(NC)	Ground
130	O	CLK24O	24.576MHz Clock
131	I	SD VDD25	+2.5V
132	---	SD VSS	Ground
133	I	SD VDD15	+1.5V
134	I	VDD15	+1.5V
135	---	1394 AVSS	Ground
136	I	1394 AVDD15	+1.5V
137	---	1394 AVSS	Ground
138	O	R(1)	Current Limit Resistor(1)
139	---	VSS(NC)	Ground
140	I	R(0)	Current Limit Resistor(0)
141	I	1394 AVDD30	+3.0V
142	---	VSS(NC)	Ground
143	---	1394 AVSS	Ground
144	---	1394 AVSS	Ground
145	I/O	TPBN	Transaction Data B(-)
146	---	VSS(NC)	Ground
147	---	VSS(NC)	Ground
148	I/O	TPBP	Transaction Data B(+)
149	---	VSS(NC)	Ground
150	I/O	TPAN	Transaction Data A(-)
151	I/O	TPAP	Transaction Data A(+)
152	I/O	TPBIAS	Transaction Bias
153	I	1394 AVDD30	+3.0V
154	I	1394 AVDD15	+1.5V
155	I	VDD15	+1.5V
156	I	XRST	Reset:Low
157	---	SSP	(Not used)
158	I	VDD18	+1.8V
159	I	HID	Head Switch Pulse
160	I	VDD18	+1.8V
161	I/O	DBR3	Degital Rec/PB Data 3
162	I/O	DBR2	Degital Rec/PB Data 2
163	I/O	DBR1	Degital Rec/PB Data 1
164	I/O	DBR0	Degital Rec/PB Data 0
165	---	VSS	Ground
166	O	ACKR	Acknowledge for RIP
167	I/O	REQR	Request for RIP
168	I/O	ADDA(3)	Address/Data 3
169	I/O	ADDA(2)	Address/Data 2
170	---	VSS	Ground
171	I/O	ADDA(1)	Address/Data 1
172	I	VDD15	+1.5V
173	I/O	ADDA(0)	Address/Data 0
174	O	VAL	BUS Control
175	O	READH	BUS Control
176	I/O	INTSEG	Interrupt signal for Servo
177	I	VDD18	+1.8V
178	O	DODAT	Digital Audio Data
179	I	VDD18	+1.8V
180	O	DOLRCK	Digital Audio L/R Clock
181	O	DOMCK	Digital Audio Master Clock
182	O	DOBCK	Digital Audio Bit Clock
183	I	AIDAT1	Digital Audio Data
184	---	AIDAT2	(Not used)
185	---	VSS	Ground
186	---	ADECOAT	(Not used)
187	---	VSS	Ground
188	O	CLK27C	27MHz Clock
189	O	LYCI00	Degital Video Data 0 for EVF
190	O	LYCI01	Degital Video Data 1 for EVF
191	O	LYCI02	Degital Video Data 2 for EVF
192	O	LYCI03	Degital Video Data 3 for EVF
193	I	VDD15	+1.5V
194	O	LYCI04	Degital Video Data 4 for EVF
195	O	LYCI05	Degital Video Data 5 for EVF
196	O	LYCI06	Degital Video Data 6 for EVF
197	O	LYCI07	Degital Video Data 7 for EVF
198	I	VDD18	+1.8V
199	---	FRP	(Not used)
200	---	INF	(Not used)
201	---	SHMFINT	(Not used)
202	---	SHMFIRD	(Not used)
203	I	VDD18	+1.8V
204	---	VSS	Ground
205	---	SHMFIMR	(Not used)
206	---	SHMFIRS	(Not used)
207	---	SHMFICS	(Not used)
208	---	SHMFID0	(Not used)
209	---	SHMFID1	(Not used)
210	---	SHMFID2	(Not used)
211	---	SHMFID3	(Not used)
212	---	SHMFID4	(Not used)
213	---	SHMFID5	(Not used)
214	---	SHMFID6	(Not used)
215	---	SHMFID7	(Not used)
216	---	CLK27D	(Not used)
217	---	YCIO(0)	(Not used)
218	---	YCIO(1)	(Not used)
219	---	YCIO(2)	(Not used)
220	---	YCIO(3)	(Not used)
221	---	VSS	Ground
222	---	YCIO(4)	(Not used)
223	---	YCIO(5)	(Not used)
224	---	YCIO(6)	(Not used)
225	---	YCIO(7)	(Not used)
226	I	CLK27X	27MHz Clock
227	I	YCIN(0)	Digital YIC Data 0
228	I	YCIN(1)	Digital YIC Data 1
229	I	YCIN(2)	Digital YIC Data 2
230	I	YCIN(3)	Digital YIC Data 3
231	I	YCIN(4)	Digital YIC Data 4
232	I	YCIN(5)	Digital YIC Data 5
233	I	VDD15	+1.5V
234	I	YCIN(6)	Digital YIC Data 6
235	I	YCIN(7)	Digital YIC Data 7
236	---	VSS	Ground
237	I	VDD18	+1.8V
238	---	BUS MODE	(Not used)
239	I	VDD18	+1.8V
240	---	VSS	Ground
241	I	DAC AVDD25	+2.5V
242	O	LCDROUT	LCD-Red Signal
243	I	LCDRVBS	LCD R Bias
244	---	DAC AVSS	Ground
245	---	DAC AVSS	Ground
246	I	DAC AVDD25	+2.5V
247	I	DAC AVDD25	+2.5V
248	O	LCDGOUT	LCD-Green Signal
249	I	LCDGVBS	LCD G Bias
250	I	LCDREF	LCD Reference Voltage
251	---	DAC AVSS	Ground
252	I	DAC AVDD25	+2.5V
253	O	LCDBOUT	LCD-Blue Signal
254	I	LCDBVBS	LCD B Bias
255	---	DAC AVSS	Ground
256	---	DAC AVSS	Ground
257	I	DAC AVDD25	+2.5V
258	I	DAC AVDD25	+2.5V
259	O	YOUT	Luminance Signal
260	I	YVBS	Y Bias
261	I	YREF	Y Reference Voltage
262	---	DAC AVSS	Ground
263	I	DAC AVDD25	+2.5V
264	O	COUT	Chrominance Signal
265	I	CVBS	C Bias
266	I	CREF	C Reference Voltage
267	---	DAC AVSS	Ground
268	---	VSS	Ground
269	I	VSDD32	+3.2V
270	---	VSS	Ground
271	O	SDCLK	SD Serial Clock
272	I/O	DATA(3)	SD Data 3
273	I/O	DATA(2)	SD Data 2
274	I/O	DATA(1)	SD Data 1
275	I/O	DATA(0)	SD Data 0
276	---	VSS(NC)	Ground
277	I/O	CMD	CMD for SD
278	---	VSS(NC)	Ground
279	I	SD VDD32	+3.2V
280	I	VDD15	+1.5V
281	O	CLK48O	48MHz Clock
282	I	CLK48I	48MHz Clock
283	---	VSS(NC)	Ground
284	---	VSS(NC)	Ground
285	---	VSS(NC)	Ground
286	I	VDD25	+2.5V
287	---	VSS	Ground
288	---	VSS(NC)	Ground
289	---	VSS(NC)	Ground
290	---	VSS(NC)	Ground
291	I/O	USB DP	USB Data (+)
292	I/O	USB DN	USB Data (-)
293	---	VSS	Ground
294	I	USB VDD32	+3.2V
295	I	USB VDD32	+3.2V
296	I	VDD30	+3.0V
297	O	CAMLENSDTO	Lens Drive Serial Data
298	O	CAMLENSCLK	Lens Drive Serial Clock
299	O	CAMLENSCS	Lens Drive Chip Select
300	O	CAMCGAFEDTO	Camera DAC/TG Serial Data
301	I	VDD30	+3.0V
302	O	CAMCGAFECLK	Camera DAC/TG Serial Clock
303	O	CAMCGCS	TG Chip Select
304	O	CAMAFECS	Camera DAC Chip Select
305	---	VSS	Ground
306	I	OSDVR	OSD-Red Signal
307	I	OSDVG	OSD-Green Signal
308	I	OSDVB	OSD-Blue Signal
309	I	OSDBLKA	OSD-Blaking Pulse (A)
310	---	VSS	Ground
311	I	VDD15	+1.5V
312	I	OSDBLKB	OSD-Blaking Pulse (B)
313	I	FAD VDD15	+1.5V
314	---	FAD VSS	Ground
315	I	FAD VDD32	+3.2V
316	O	OSDHD	OSD-HD Pulse
317	O	OSDVD	OSD-VD Pulse
318	O	LCDVBLK	LCD V-Sync Pulse
319	O	LCDHD	LCD H-Sync Pulse
320	---	VSS	Ground
321	I	LCDPOL	LCD Polarity Detect
322	I	VDD30	+3.0V
323	O	CLK45M ZB	4.5MHz Clock
324	O	AFDRVD	Lens Drive VD Pulse
325	---	LINPWM	(Not used)
326	O	OSDCLK	OSD Clock
327	O	FSLPFO	FSPLL LPF Out
328	---	DTCLK	(Not used)
329	---	DVM	(Not used)
330	I	FAD VDD32	+3.2V
331	---	FAD VSS	Ground
332	I	FAD VDD15	+1.5V
333	I	VDD30	+3.0V
334	I	VDD18	+1.8V
335	---	TRACECLK	(Not used)
336	---	TRACESYNC	(Not used)
337	---	TRACEPKT(0)	(Not used)
338	---	TRACEPKT(1)	(Not used)
339	I	VDD18	+1.8V
340	I	VDD15	+1.5V
341	---	VSS	Ground
342	I	SD VDD15	+1.5V
343	---	SD VSS	Ground
344	I	SD VDD25	+2.5V
345	---	TRACEPKT(2)	(Not used)
346	---	TRACEPKT(3)	(Not used)
347	---	TRACEPKT(4)	(Not used)
348	---	TRACEPKT(5)	(Not used)
349	---	TRACEPKT(6)	(Not used)
350	---	TRACEPKT(7)	(Not used)
351	---	PIPESTAT(0)	(Not used)
352	---	PIPESTAT(1)	(Not used)
353	---	PIPESTAT(2)	(Not used)
354	---	A15	(Not used)
355	---	VSS	Ground
356	I	SD VDD25	+2.5V
357	---	SD VSS	Ground
358	I	SD VDD15	+1.5V
359	---	VSS	Ground
360	---	RTCK	(Not used)
361	I	XTRST	Reset:Low
362	---	NC	(Not used)
363	---	NC	(Not used)
364	---	NC	(Not used)

MAIN VI SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
HRA5V
RF3V
REGD1.8V
REGA2.5V
TP3203
TO M V
211 HID1
ADDA[3]
ADDA[2]
ADDA[1]
ADDA[0]
VAL
READH
INTSEG
DBR[3]
DBR[2]
DBR[1]
DBR[0]
CLK27A
REQR
ACKR
TO M II
57 XRST
IC3201
C1AB00001695
(FORMATTING /EQUALIZER)
LINK TO I/O CHART
L3201
J0JBC0000014
L3202
10U
L3203
10U
L3204
10U
TO M IX
218 2V_TMS
217 2V_TCK
216 DUO_TDO
219 RIP_TDO
TP3906
CAP_FG
TORQU_LIMIT
CYLON_L
LOAD
UNLOAD
TRLFG
SRLFG
CAP_RSF
CYL_ERR
CAP_ERR
TO M VIII
POS3
POS2
POS1
S_TAB
TO M I
HID
ATFI
HA_OUT
TP3202
CYL_PG
DRIVE_CLK
TP3201
CYL_FG
IC5001
AN3732FJMEFV
(HEAD AMP)
FP5 (TO CYLINDER UNIT)
GND
CH1F
CH1S
CH2S
CH2F
GND
GND
GND
L5001
100U
L5002
10U
R5011
0

LINK TO VOLTAGE CHART

LSJB8262

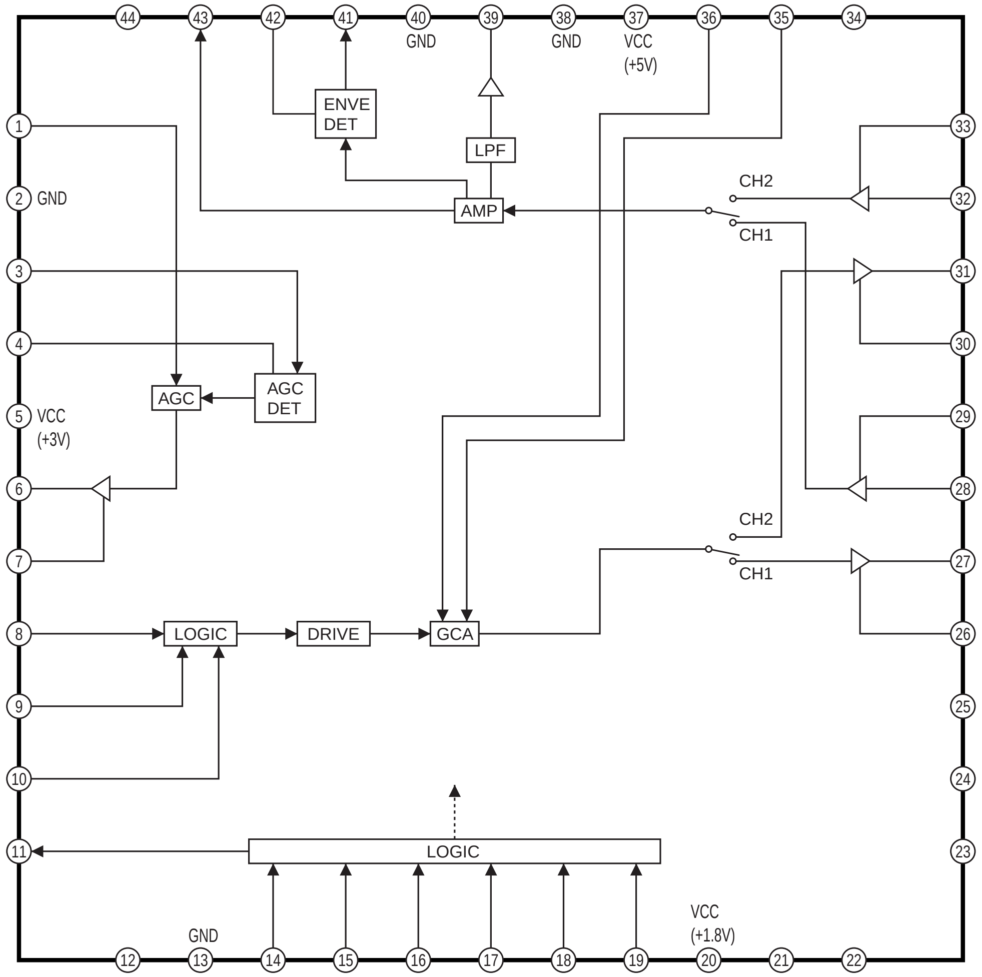
MAIN VI SCHEMATIC DIAGRAM

PV-GS9PL/PV-GS12PL/PV-GS15PL

I/O CHART OF IC3201

Pin No.	I/O	Signal Name	Description
1	-	DVSS	Ground
2	-	VRH	V-ref : high
3	-	VRL	V-ref : low
4	I	AVD12 (ADC1)	+1.8V
5	-	ADTEST	Test pin
6	-	AVS12 (ADC1)	Ground
7	I	AVD14 (AMP1)	+1.8V
8	-	AVS14 (AMP1)	Ground
9	I	PBIN	PB data input (+)
10	I	AVD15 (ADC2)	+1.8V
11	I	ATFIN	ATF input
12	-	AVS15 (ADC2)	Ground
13	I	AVD13 (ADC1/2)	+1.8V
14	-	AVS13 (ADC1/2)	Ground
15	I	AVD16 (VREF)	+1.8V
16	-	VCORP	VCO reference resister
17	-	AVS16 (VREF)	Ground
18	-	AVS22 (DAC2/3)	Ground
19	O	OSO	Offset output
20	-	VREF3	V-ref3
21	-	VREF2	V-ref2
22	I	AVD22 (DAC2/3)	+1.8V
23	O	ATF0	ATF output
24	-	VREF1	V-ref1
25	O	FPORP	Frequency Phase out (+)
26	-	AVS21 (DAC1)	Ground
27	I	AVD21 (DAC1)	+1.8V
28	-	FRP	(Not used)
29	I	VCOIN	VCO input
30	-	AVS11 (VCO)	Ground
31	I	AVD11 (VCO)	+1.8V
32	I	DVDD25	+2.5V
33	O	AGCCTL	AGC control
34	O	RECCUR	Rec current control
35	-	CAPERR	Test pin
36	-	CYLERR	Test pin
37	-	CAPRSF	Test pin
38	-	DVSS	Ground
39	I	TRST	Reset : low
40	I	TMS	Test mode of JTAG
41	I	TDI	Test data out of JTAG
42	O	TDO	Test data In of JTAG
43	I	TCK	Test clock of JTAG
44	O	HID1	Head switch pulse 1
45	O	HID2	Head switch pulse 2
46	O	SPA	Sample pulse for ATF
47	-	DVSS	Ground
48	O	RECI	Rec on/off control
49	I	EQHLD	Equalizer hold
50	O	HSE	Rec data
51	O	RECCLK	Rec clock
52	I	DVDD18	+1.8V
53	O	RECCTL	Rec control
54	O	PBH	PB mode : high
55	I	CYLFG	Cylinder FG head
56	O	DriveCLK	Drive clock
57	-	DVSS	Ground
58	I	CYLPG	Cylinder PG head
59	-	ADM[0]	(Not used)
60	-	ADM[1]	(Not used)
61	I/O	ADM[2]	Address/data 2
62	I	ADD18	+1.8V
63	I/O	ADM[3]	Address/data 3
64	I/O	ADM[4]	Address/data 4
65	I/O	ADM[5]	Address/data 5
66	-	DVSS	Ground
67	I/O	ADM[6]	Address/data 6
68	I/O	ADM[7]	Address/data 7
69	I/O	ADM[8]	Address/data 8
70	I	DVDD18	+1.8V
71	I/O	ADM[9]	Address/data 9
72	I/O	ADM[10]	Address/data 10
73	I/O	ADM[11]	Address/data 11
74	I/O	ADM[12]	Address/data 12
75	-	DVSS	Ground
76	I/O	ADM[13]	Address/data 13
77	I/O	ADM[14]	Address/data 14
78	I/O	ADM[15]	Address/data 15
79	I	AS	Address strobe
80	I	DVDD18	+1.8V
81	I	XRE	Read enable
82	I	XWEL	Write enable
83	I	XWEH	Write enable
84	I	CLK27A	27MHz clock
85	-	DVSS	Ground
86	I/O	DVR[0]	Digital Rec/PB data (0)
87	I/O	DVR[1]	Digital Rec/PB data (1)
88	I/O	DVR[2]	Digital Rec/PB data (2)
89	I/O	DVR[3]	Digital Rec/PB data (3)
90	I	DVDD18	+1.8V
91	O	REQR	Request of R10
92	I	ACKR	Acknowledge for R10
93	-	TSTCKI	(Not used)
94	-	DVSS	Ground
95	-	TSTDT[0]	(Not used)
96	-	TSTDT[1]	(Not used)
97	-	TSTDT[2]	(Not used)
98	I	DVDD18	+1.8V
99	-	TSTDT[3]	(Not used)
100	-	TSTDT[4]	(Not used)
101	-	TSTDT[5]	(Not used)
102	-	TSTDT[6]	(Not used)
103	-	DVSS	Ground
104	-	TSTDT[7]	(Not used)
105	-	TSTDT[8]	(Not used)
106	-	TSTDT[9]	(Not used)
107	I	VPD	+1.8V
108	I	DVDD18	+1.8V
109	I	XRST	Reset : low
110	-	TSTMD	(Not used)
111	-	CS	(Not used)
112	-	GESW	(Not used)

IC5001 IC- DETAIL BLOCK DIAGRAM

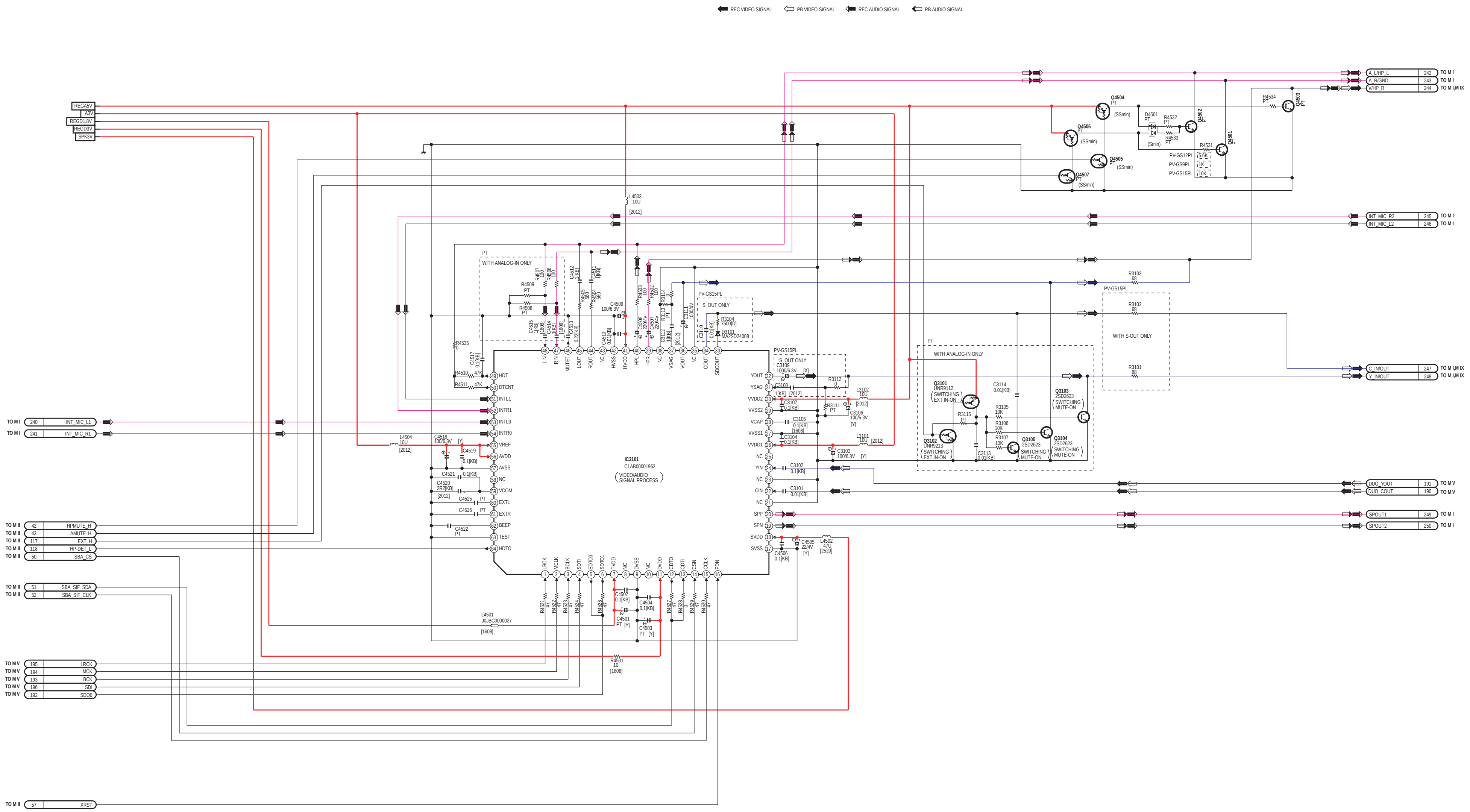


MAIN VII SCHEMATIC DIAGRAM

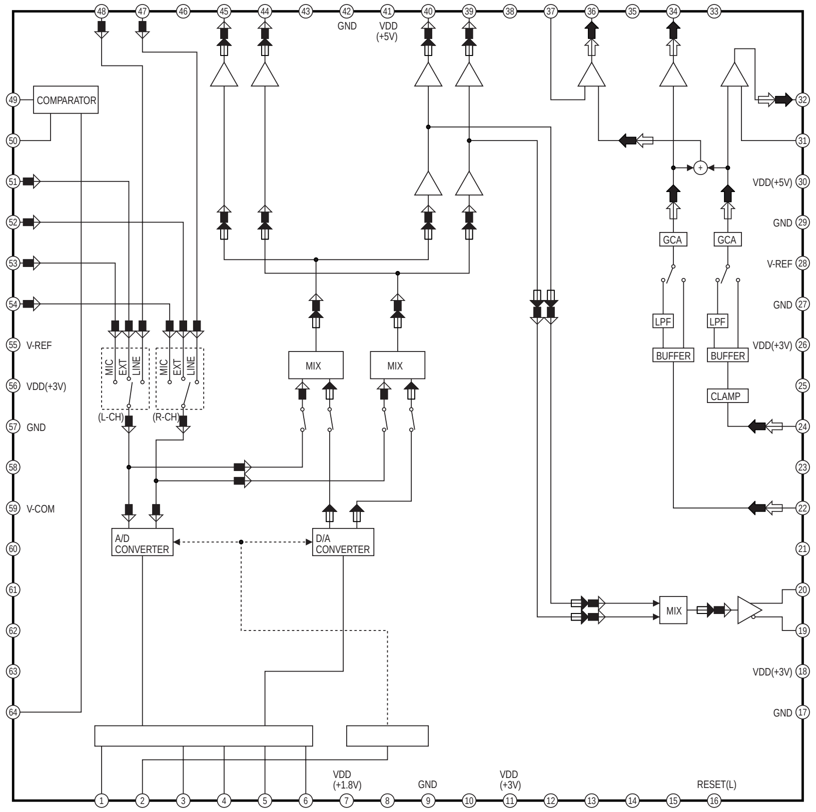
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
REG4.5V
A3V
REG1.8V
REG3V
SPK3V
IC3101
C1AB00001962
VIDEO/AUDIO SIGNAL PROCESS
TO M I 240 INT_MIC_L1
TO M I 241 INT_MIC_R1
TO M II 42 HPMUTE_H
TO M II 43 AMUTE_H
TO M II 117 EXT_H
TO M II 118 HP-DET_L
TO M II 50 SBA_CS
TO M II 51 SBA_SIF_SDA
TO M II 52 SBA_SIF_CLK
TO M V 195 LRCK
TO M V 194 MCK
TO M V 193 BCK
TO M V 196 SDI
TO M V 192 SDOO
TO M II 57 XRST
A_LHP_L 242 TO M I
A_RGND 243 TO M I
VHP_R 244 TO M I,M IX
INT_MIC_R2 245 TO M I
INT_MIC_L2 246 TO M I
C_IN/OUT 247 TO M I,M IX
Y_IN/OUT 248 TO M I,M IX
DUO_YOUT 191 TO M V
DUO_COUT 190 TO M V
SPOUT1 249 TO M I
SPOUT2 250 TO M I
Q3101 UNR9112 SWITCHING EXT IN-ON
Q3102 UNR9213 SWITCHING EXT IN-ON
Q3103 2SD2623 SWITCHING MUTE-ON
Q3104 2SD2623 SWITCHING MUTE-ON
Q3105 2SD2623 SWITCHING MUTE-ON
WITH ANALOG-IN ONLY
WITH S-OUT ONLY
S_OUT ONLY
PV-GS15PL
PV-GS12PL
PV-GS9PL
L4501 J0JBC0000027
L4503 10U
L4504 10U
L4502 47U

IC3101 IC- DETAIL BLOCK DIAGRAM


COMPARATOR
V-REF
VDD(+3V)
GND
V-COM
MIC
EXT
LINE
(L-CH)
(R-CH)
MIX
MIX
A/D CONVERTER
D/A CONVERTER
GCA
GCA
LPF
LPF
BUFFER
BUFFER
CLAMP
MIX
GND
VDD (+5V)
VDD(+5V)
GND
V-REF
GND
VDD(+3V)
VDD(+3V)
GND
VDD (+1.8V)
GND
VDD (+3V)
RESET(L)

LINK TO VOLTAGE CHART

LSJB8262

MAIN VII SCHEMATIC DIAGRAM

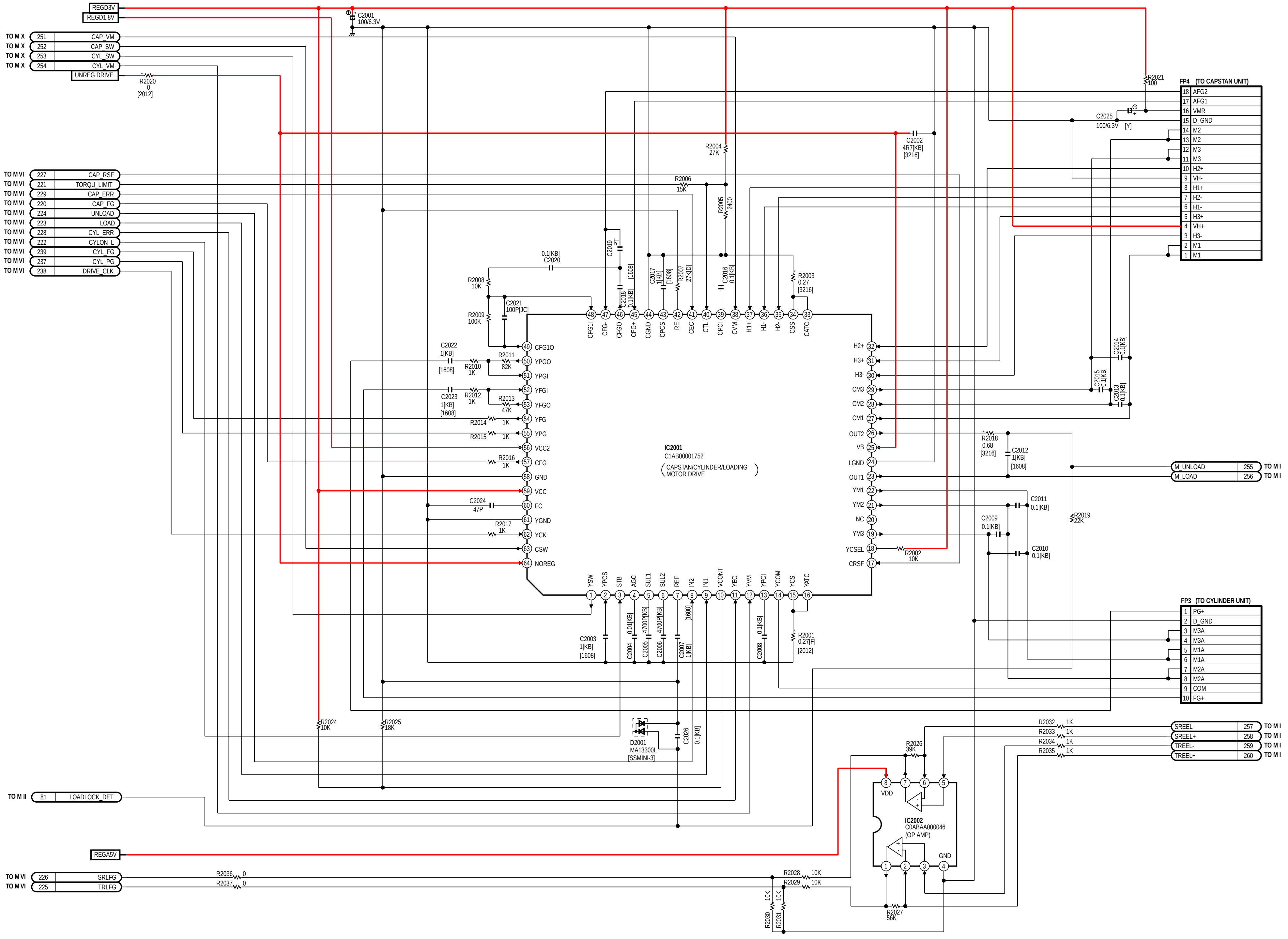
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN VIII SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

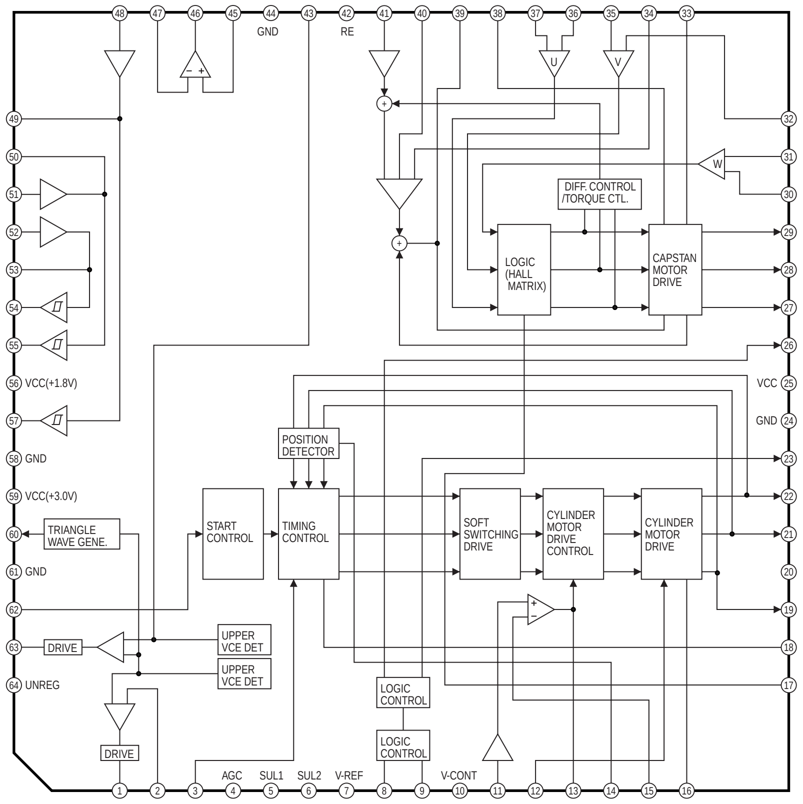
NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.



REGD3V
REGD1.8V
TO M X 251 CAP_VM
TO M X 252 CAP_SW
TO M X 253 CYL_SW
TO M X 254 CYL_VM
UNREG DRIVE
TO M VI 227 CAP_RSF
TO M VI 221 TORQU_LIMIT
TO M VI 229 CAP_ERR
TO M VI 220 CAP_FG
TO M VI 224 UNLOAD
TO M VI 223 LOAD
TO M VI 228 CYL_ERR
TO M VI 222 CYLON_L
TO M VI 239 CYL_FG
TO M VI 237 CYL_PG
TO M VI 238 DRIVE_CLK
C2001 100/6.3V
R2020 0 [2012]
FP4 (TO CAPSTAN UNIT)
18 AFG2
17 AFG1
16 VMR
15 D_GND
14 M2
13 M2
12 M3
11 M3
10 H2+
9 VH-
8 H1+
7 H2-
6 H1-
5 H3+
4 VH+
3 H3-
2 M1
1 M1
R2021 100
C2025 100/6.3V [Y]
C2002 4R7[KB] [3216]
R2004 27K
R2006 15K
R2005 2400
IC2001
C1AB00001752
(CAPSTAN/CYLINDER/LOADING MOTOR DRIVE)
CFGII CFG- CFGO CFG+ CGND CPCS RE CEC CTL CPCI CVM H1+ H1- H2- CSS CATC
CFG1O YPGO YPGI YFGI YFGO YFG YPG VCC2 CFG GND VCC FC YGND YCK CSW NOREG
H2+ H3+ H3- CM3 CM2 CM1 OUT2 VB LGND OUT1 YM1 YM2 NC YM3 YCSEL CRSF
YSW YPCS STB AGC SUL1 SUL2 REF IN2 IN1 VCONT YEC YVM YPCI YCOM YCS YATC
TO M I 255 M_UNLOAD
TO M I 256 M_LOAD
FP3 (TO CYLINDER UNIT)
1 PG+
2 D_GND
3 M3A
4 M3A
5 M1A
6 M1A
7 M2A
8 M2A
9 COM
10 FG+
TO M I 257 SREEL-
TO M I 258 SREEL+
TO M I 259 TREEL-
TO M I 260 TREEL+
D2001 MA13300L [SSMINI-3]
IC2002 C0ABAA000046 (OP AMP)
VDD
GND
TO M II 81 LOADLOCK_DET
REGA5V
TO M VI 226 SRLFG
TO M VI 225 TRLFG
R2026 39K
R2027 56K
R2028 10K
R2029 10K
R2030 10K
R2031 10K
R2036 0
R2037 0
R2024 10K
R2025 18K

IC2001 IC- DETAIL BLOCK DIAGRAM



GND
RE
DIFF. CONTROL /TORQUE CTL.
LOGIC (HALL MATRIX)
CAPSTAN MOTOR DRIVE
VCC(+1.8V)
VCC
GND
GND
VCC(+3.0V)
GND
UNREG
POSITION DETECTOR
TRIANGLE WAVE GENE.
START CONTROL
TIMING CONTROL
SOFT SWITCHING DRIVE
CYLINDER MOTOR DRIVE CONTROL
CYLINDER MOTOR DRIVE
DRIVE
UPPER VCE DET
UPPER VCE DET
LOGIC CONTROL
LOGIC CONTROL
DRIVE
AGC
SUL1
SUL2
V-REF
V-CONT
U
V
W

LINK TO VOLTAGE CHART

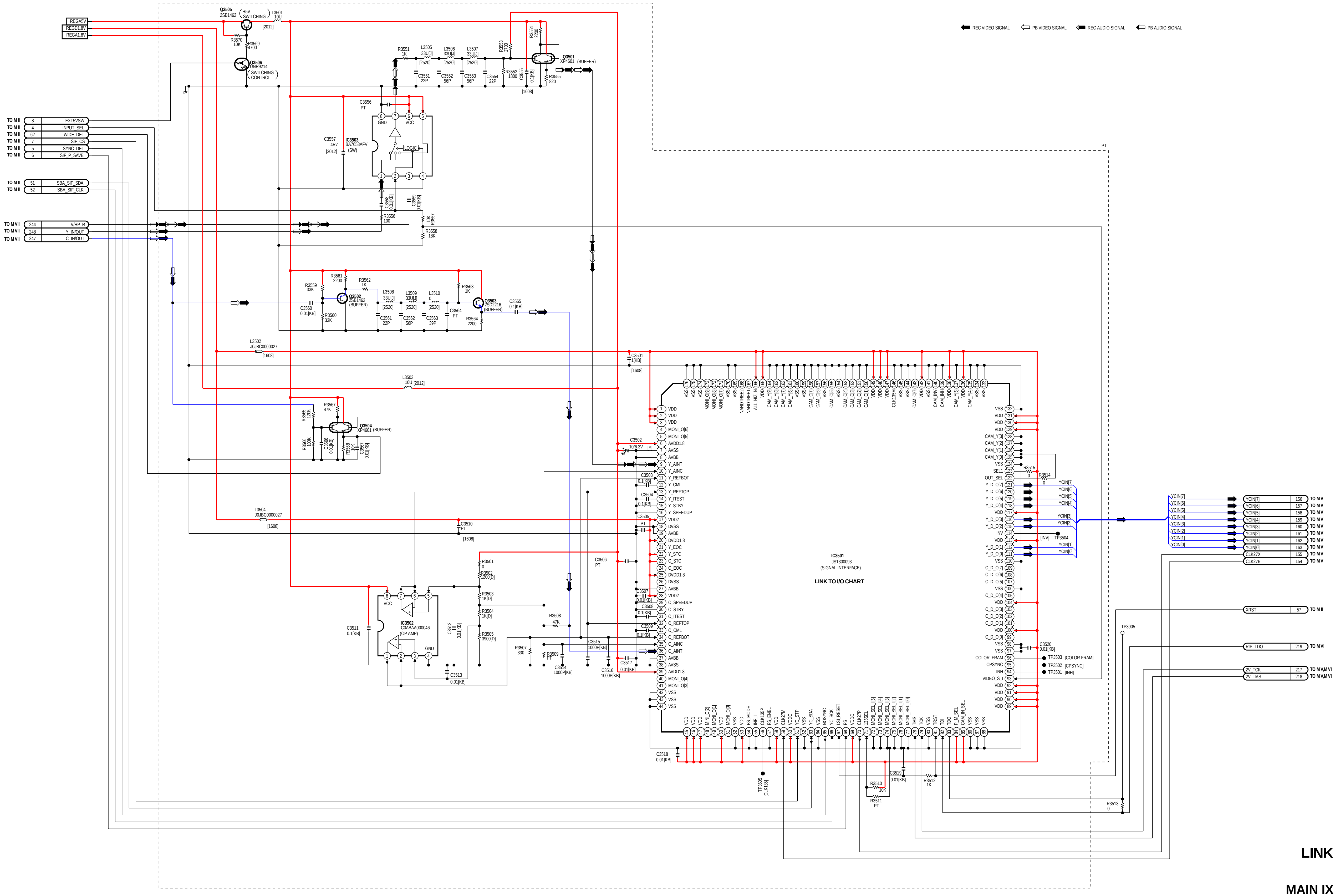
LSJB8262
MAIN VIII SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

MAIN IX SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
REC AUDIO SIGNAL
PB AUDIO SIGNAL
REGA5V
REGD1.8V
REGA1.8V
Q3505 2SB1462 (+5V SWITCHING)
L3501 10U [2012]
R3570 10K
R3569 4700
Q3506 UNR9214 (SWITCHING CONTROL)
TO M II 8 EXT5VSW
TO M II 4 INPUT_SEL
TO M II 62 WIDE_DET
TO M II 7 SIF_CS
TO M II 5 SYNC_DET
TO M II 6 SIF_P_SAVE
TO M II 51 SBA_SIF_SDA
TO M II 52 SBA_SIF_CLK
TO M VII 244 V/HP_R
TO M VII 248 Y_IN/OUT
TO M VII 247 C_IN/OUT
IC3503 BA7653AFV (SW)
GND
VCC
LOGIC
C3556 PT
C3557 4R7 [2012]
R3556 100
R3557 10K
R3558 18K
Q3501 XP4601 (BUFFER)
Q3502 2SB1462 (BUFFER)
Q3503 2SD2216 (BUFFER)
Q3504 XP4601 (BUFFER)
L3502 J0JBC0000027 [1608]
L3503 10U [2012]
L3504 J0JBC0000027 [1608]
IC3502 C0ABAA000046 (OP AMP)
VCC
GND
IC3501 JS1300093 (SIGNAL INTERFACE)
LINK TO I/O CHART
YCIN[7] 156 TO M V
YCIN[6] 157 TO M V
YCIN[5] 158 TO M V
YCIN[4] 159 TO M V
YCIN[3] 160 TO M V
YCIN[2] 161 TO M V
YCIN[1] 162 TO M V
YCIN[0] 163 TO M V
CLK27X 155 TO M V
CLK27B 154 TO M V
XRST 57 TO M II
RIP_TDO 219 TO M VI
2V_TCK 217 TO M V,M VI
2V_TMS 218 TO M V,M VI
TP3503 [COLOR FRAM]
TP3502 [CPSYNC]
TP3501 [INH]
TP3504 [INV]
TP3505 [CLK36]
TP3905
R3510 10K
R3511 PT
R3512 1K
R3513 0
PT

LINK TO VOLTAGE CHART

LSJB8262
MAIN IX SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

I/O CHART OF IC3501

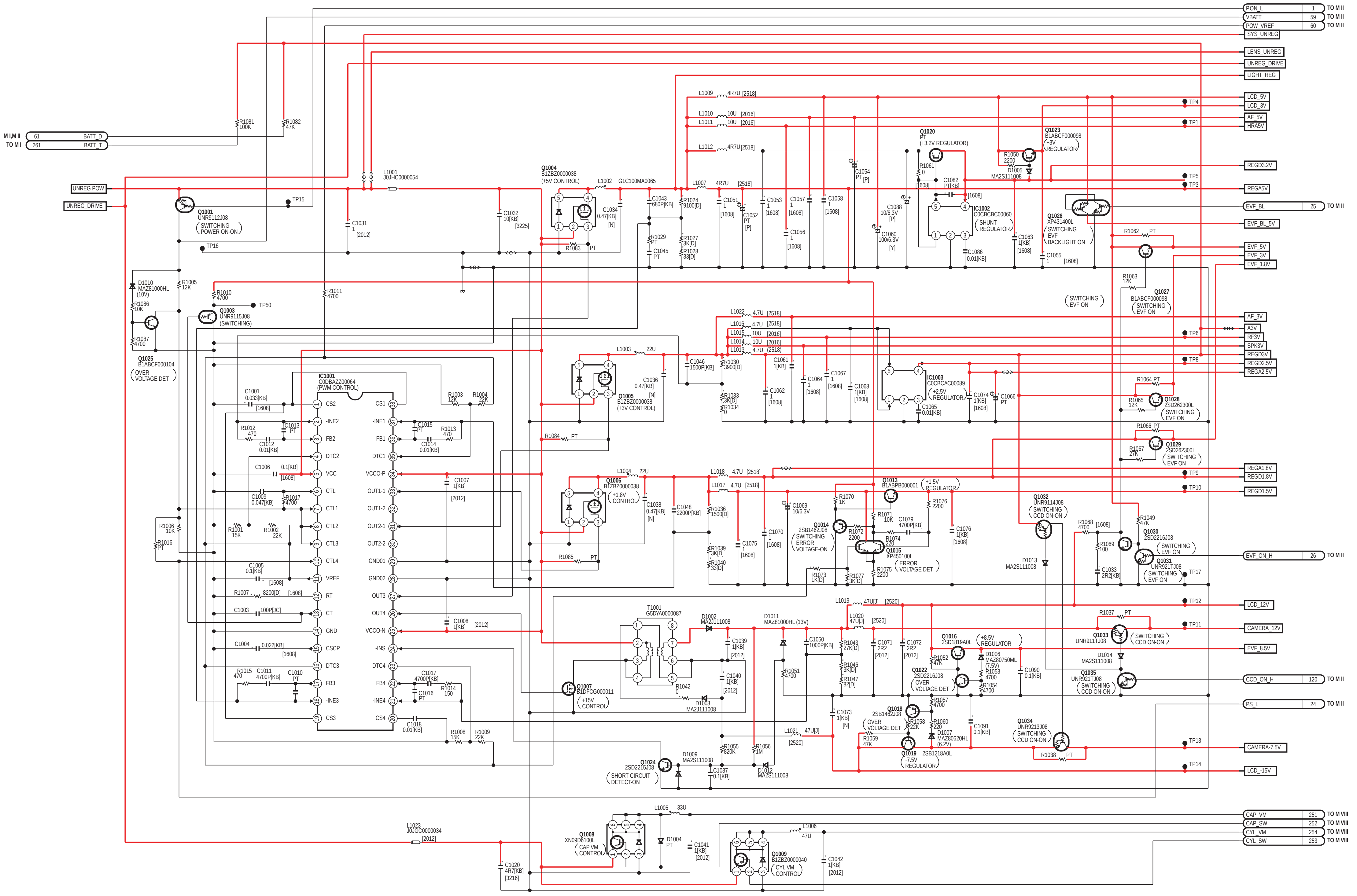
Pin No.	I/O	Signal Name	Description
1	I	VDD	+1.8V
2	I	VDD	+1.8V
3	I	VDD	+1.8V
4	-	MONI O[6]	(Not used)
5	-	MONI O[5]	(Not used)
6	I	AVDD2.5	+2.5V
7	-	AVSS	Ground
8	-	AVBB	Ground
9	I	Y AINT	Analog luminance signal
10	I	Y AINC	Analog luminance common
11	I	Y REFBOT	V-ref(L) for luminance A/D converter
12	-	Y CML	Luminance A/D converter internal bias
13	I	Y REFTOP	V-ref(H) for luminance A/D converter
14	-	Y ITEST	Luminance A/D converter internal bias
15	-	Y STBY	Power save standby
16	-	Y SPEEDUP	Speed test pin
17	I	VDD2	+1.8V
18	-	DVSS	Ground
19	-	AVBB	Ground
20	I	DVDD2.5	+2.5V
21	-	Y EOC	(Not used)
22	-	Y STC	(Not used)
23	-	C STC	(Not used)
24	-	C EOC	(Not used)
25	I	DVDD2.5	+2.5V
26	-	DVSS	Ground
27	-	AVBB	Ground
28	I	VDD2	+1.8V
29	-	C SPEEDUP	Speed test pin
30	-	C STBY	Power save standby
31	-	C ITEST	Chrominance A/D converter internal bias
32	I	C REFTOP	V-ref(H) for chrominance A/D converter
33	-	C CML	Chrominance A/D converter internal bias
34	I	C REFBOT	V-ref(L) for chrominance A/D converter
35	I	C AINC	Analog chrominance common
36	I	C AINT	Analog chrominance signal
37	-	AVBB	Ground
38	-	AVSS	Ground
39	I	AVDD2.5	+2.5V
40	-	MONI O[4]	(Not used)
41	-	MONI O[3]	(Not used)
42	-	VSS	Ground
43	-	VSS	Ground
44	-	VSS	Ground
45	I	VDD	+1.8V
46	I	VDD	+1.8V
47	I	VDD	+1.8V
48	-	MONI O[2]	(Not used)
49	-	MONI O[1]	(Not used)
50	I	VDD	+1.8V
51	-	MONI O[0]	(Not used)
52	-	VSS	Ground
53	I	VDD	+1.8V
54	-	FS MODE	(Not used)
55	-	INF I	(Not used)
56	-	CLK135P	(Not used)
57	-	FS ENBL	(Not used)
58	I	VDD	+1.8V
59	I	CLK27M	27MHz clock
60	I	VDDC	+1.8V
61	I	YC STP	SIF chip select
62	-	VSS	Ground
63	I/O	YC SDA	SIF serial data
64	-	VSS	Ground
65	O	NOSYNC	No sync detect
66	I	YC SCK	SIF serial clock
67	I	LSI RESET	Reset : low
68	I	PS	Exit pause
69	I	VDDC	+1.8V
70	-	CLK27P	(Not used)
71	-	135SEL	(Not used)
72	-	MONI SEL I[5]	(Not used)
73	-	MONI SEL I[4]	(Not used)
74	-	MONI SEL I[3]	(Not used)
75	-	MONI SEL I[2]	(Not used)
76	-	MONI SEL I[1]	(Not used)
77	-	MONI SEL I[0]	(Not used)
78	I	TMS	Test mode select
79	I	TCK	Test clock
80	-	VSS	Ground
81	I	TRST	Reset : low
82	I	TDI	Test data
83	-	TDO	(Not used)
84	-	P M SEL	(Not used)
85	-	CAM IN SEL	(Not used)
86	-	VSS	Ground
87	-	VSS	Ground
88	-	VSS	Ground
89	I	VDD	+1.8V
90	I	VDD	+1.8V
91	I	VDD	+1.8V
92	I	VDD	+1.8V
93	I	VIDEO S I	Input select
94	-	INH	(Not used)
95	-	CPSYNC	(Not used)
96	-	COLOR FRAM	(Not used)
97	-	VSS	Ground
98	-	VSS	Ground
99	-	C D O[0]	(Not used)
100	I	VDD	+1.8V
101	-	C D O[1]	(Not used)
102	-	C D O[2]	(Not used)
103	-	C D O[3]	(Not used)
104	I	VDD	+1.8V
105	-	C D O[4]	(Not used)
106	-	VSS	Ground
107	-	C D O[5]	(Not used)
108	-	C D O[6]	(Not used)
109	-	C D O[7]	(Not used)
110	-	VSS	Ground
111	O	Y D O[0]	Luminance data 0
112	O	Y D O[1]	Luminance data 1
113	I	VDD	+1.8V
114	-	INV	(Not used)
115	O	Y D O[2]	Luminance data 2
116	O	Y D O[3]	Luminance data 3
117	I	VDD	+1.8V
118	O	Y D O[4]	Luminance data 4
119	O	Y D O[5]	Luminance data 5
120	O	Y D O[6]	Luminance data 6
121	O	Y D O[7]	Luminance data 7
122	-	OUT SEL	(Not used)
123	-	SEL1	(Not used)
124	-	VSS	Ground
125	-	CAM Y[0]	(Not used)
126	-	CAM Y[1]	(Not used)
127	-	CAM Y[2]	(Not used)
128	-	CAM Y[3]	(Not used)
129	I	VDD	+1.8V
130	I	VDD	+1.8V
131	I	VDD	+1.8V
132	-	VSS	Ground
133	-	VSS	Ground
134	-	VSS	Ground
135	-	CAM Y[4]	(Not used)
136	I	VDD	+1.8V
137	-	CAM Y[5]	(Not used)
138	I	VDD	+1.8V
139	-	CAM INH	(Not used)
140	-	CAM INV	(Not used)
141	-	VSS	Ground
142	I	VDD	+1.8V
143	-	CAM C[0]	(Not used)
144	-	VSS	Ground
145	-	VSS	Ground
146	-	CLK135M	(Not used)
147	I	VDD	+1.8V
148	I	VDD	+1.8V
149	I	VDD	+1.8V
150	-	CAM C[1]	(Not used)
151	-	CAM C[2]	(Not used)
152	-	CAM C[3]	(Not used)
153	-	CAM C[4]	(Not used)
154	-	VSS	Ground
155	-	CAM C[5]	(Not used)
156	-	VSS	Ground
157	-	CAM C[6]	(Not used)
158	-	CAM C[7]	(Not used)
159	-	VSS	Ground
160	-	VSS	Ground
161	-	CAM Y[6]	(Not used)
162	-	CAM Y[7]	(Not used)
163	-	CAM Y[8]	(Not used)
164	-	CAM Y[9]	(Not used)
165	I	VDD	+1.8V
166	I	ALL HIZ N	(Not used)
167	-	NANDTREE1	(Not used)
168	-	NANDTREE2	(Not used)
169	-	VSS	Ground
170	-	VSS	Ground
171	-	MONI O[7]	(Not used)
172	-	MONI O[8]	(Not used)
173	-	MONI O[9]	(Not used)
174	-	VSS	Ground
175	-	VSS	Ground
176	-	VSS	Ground

MAIN X SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

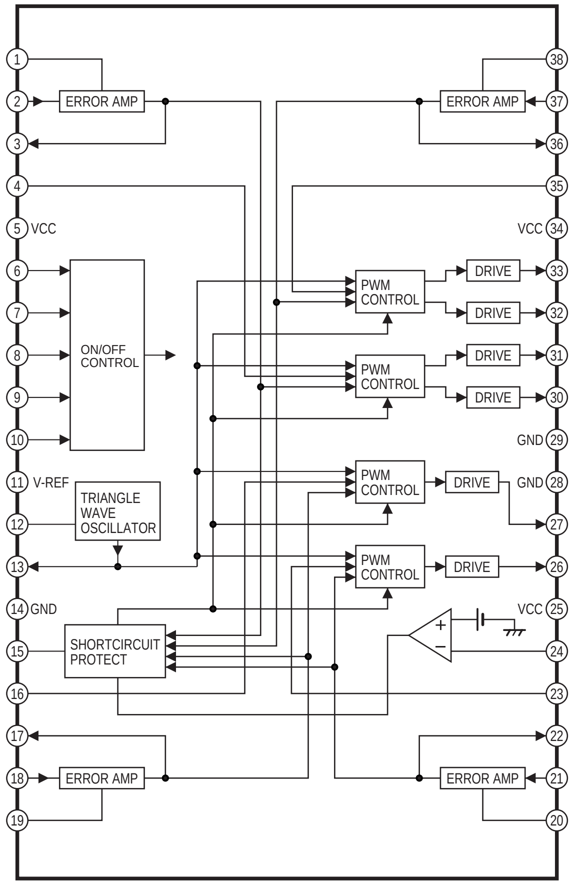
NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.



M LM II 61 BATT_D
TO M I 261 BATT_T
UNREG POW
UNREG_DRIVE
PON_L 1 TO M II
VBATT 59 TO M II
POW_VREF 60 TO M II
SYS_UNREG
LENS_UNREG
UNREG_DRIVE
LIGHT_REG
LCD_5V
LCD_3V
AF_5V
HRA5V
REGD3.2V
REGA5V
EVF_BL 25 TO M II
EVF_BL_5V
EVF_5V
EVF_3V
EVF_1.8V
AF_3V
A3V
RF3V
SPK3V
REGD3V
REGD2.5V
REGA2.5V
REGA1.8V
REGD1.8V
REGD1.5V
EVF_ON_H 26 TO M II
LCD_12V
CAMERA_12V
EVF_8.5V
CCD_ON_H 120 TO M II
PS_L 24 TO M II
CAMERA-7.5V
LCD_-15V
CAP_VM 251 TO M VIII
CAP_SW 252 TO M VIII
CYL_VM 254 TO M VIII
CYL_SW 253 TO M VIII
IC1001 C0DBAZZ00064 (PWM CONTROL)
CS2 CS1 -INE2 -INE1 FB2 FB1 DTC2 DTC1 VCC VCCO-P CTL OUT1-1 CTL1 OUT1-2 CTL2 OUT2-1 CTL3 OUT2-2 CTL4 GND01 VREF GND02 RT OUT3 CT OUT4 GND VCCO-N CSCP -INS DTC3 DTC4 FB3 FB4 -INE3 -INE4 CS3 CS4
Q1001 UNR9112J08 (SWITCHING POWER ON-ON)
Q1003 UNR9115J08 (SWITCHING)
Q1025 B1ABCF000104 (OVER VOLTAGE DET)
D1010 MAZ81000HL (10V)
Q1004 B1ZBZ0000038 (+5V CONTROL)
Q1005 B1ZBZ0000038 (+3V CONTROL)
Q1006 B1ZBZ0000038 (+1.8V CONTROL)
Q1007 B1DFCG000011 (+15V CONTROL)
Q1008 XN09D8100L (CAP VM CONTROL)
Q1009 B1ZBZ0000040 (CYL VM CONTROL)
Q1020 PT (+3.2V REGULATOR)
Q1023 B1ABCF000098 (+3V REGULATOR)
IC1002 C0CBCBC00060 (SHUNT REGULATOR)
Q1026 XP431400L (SWITCHING EVF BACKLIGHT ON)
Q1027 B1ABCF000098 (SWITCHING EVF ON)
IC1003 C0CBCAC00089 (+2.5V REGULATOR)
Q1028 2SD2623OOL (SWITCHING EVF ON)
Q1029 2SD2623OOL (SWITCHING EVF ON)
Q1013 B1ABPB000001 (+1.5V REGULATOR)
Q1014 2SB1462J08 (SWITCHING ERROR VOLTAGE-ON)
Q1015 XP4501OOL (ERROR VOLTAGE DET)
Q1032 UNR9114J08 (SWITCHING CCD ON-ON)
Q1030 2SD2216J08 (SWITCHING EVF ON)
Q1031 UNR921TJ08 (SWITCHING EVF ON)
T1001 G5DYA0000087
Q1016 2SD1819A0L (+8.5V REGULATOR)
Q1022 2SD2216J08 (OVER VOLTAGE DET)
Q1018 2SB1462J08 (OVER VOLTAGE DET)
Q1019 2SB1218A0L (-7.5V REGULATOR)
Q1033 UNR911TJ08 (SWITCHING CCD ON-ON)
Q1035 UNR921TJ08 (SWITCHING CCD ON-ON)
Q1034 UNR9213J08 (SWITCHING CCD ON-ON)
Q1024 2SD2216J08 (SHORT CIRCUIT DETECT-ON)
TP1 TP3 TP4 TP5 TP6 TP8 TP9 TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP50

IC1001 IC- DETAIL BLOCK DIAGRAM



1
2
3
4
5 VCC
6
7
8
9
10
11 V-REF
12
13
14 GND
15
16
17
18
19
ERROR AMP
ON/OFF CONTROL
TRIANGLE WAVE OSCILLATOR
SHORTCIRCUIT PROTECT
ERROR AMP
ERROR AMP
ERROR AMP
PWM CONTROL
PWM CONTROL
PWM CONTROL
PWM CONTROL
DRIVE
DRIVE
DRIVE
DRIVE
DRIVE
DRIVE
38
37
36
35
VCC 34
33
32
31
30
GND 29
GND 28
27
26
VCC 25
24
23
22
21
20

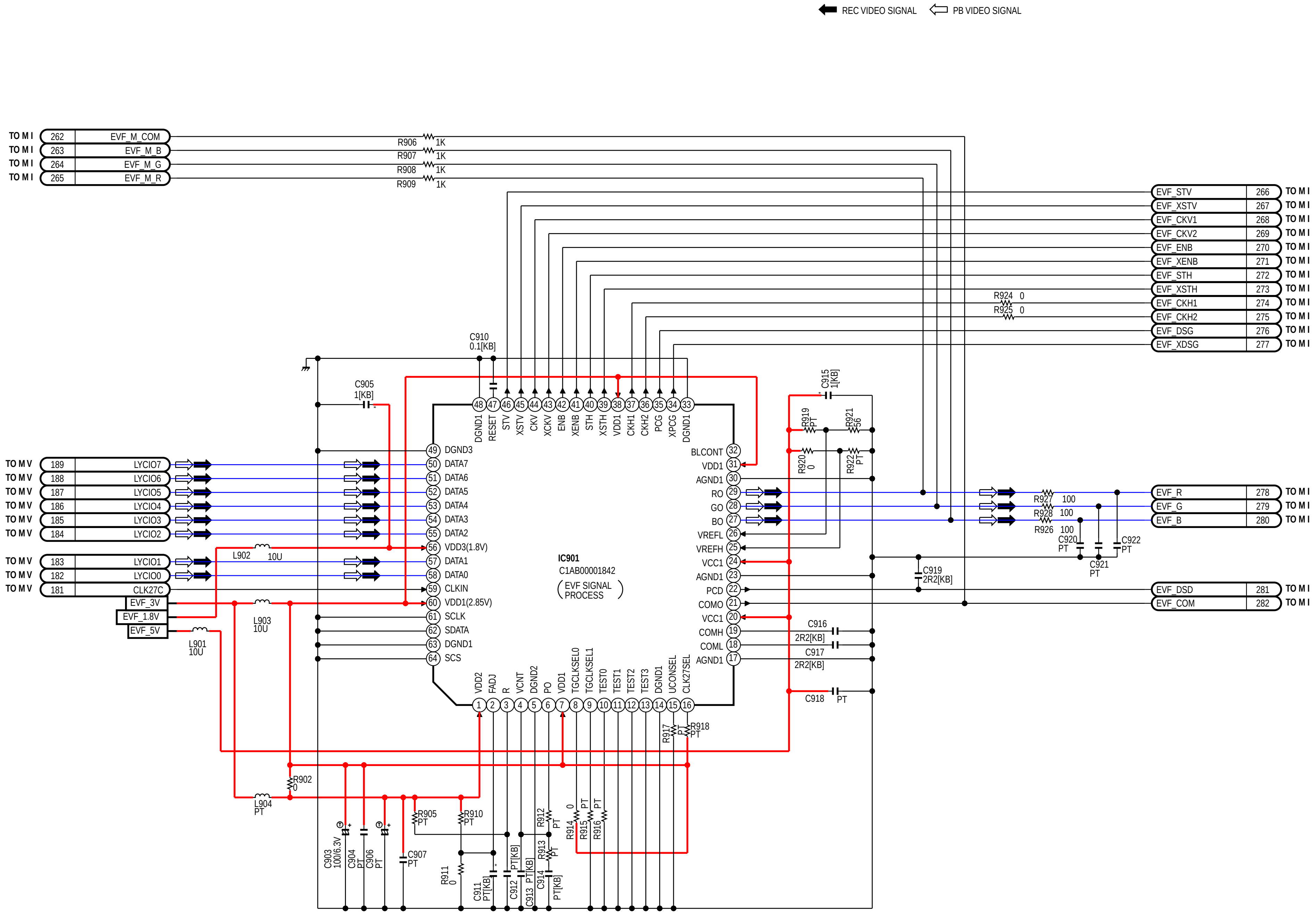
LINK TO VOLTAGE CHART

MAIN XI SCHEMATIC DIAGRAM

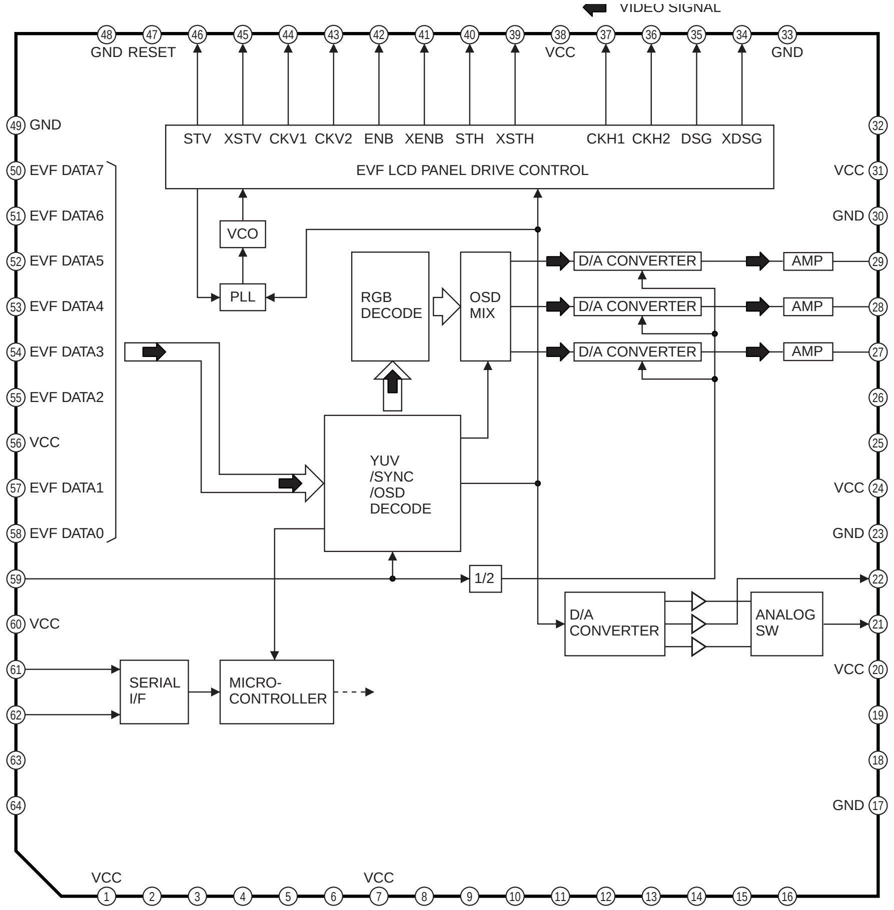
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


REC VIDEO SIGNAL
PB VIDEO SIGNAL
TO M I
262 EVF_M_COM
263 EVF_M_B
264 EVF_M_G
265 EVF_M_R
R906 1K
R907 1K
R908 1K
R909 1K
EVF_STV 266
EVF_XSTV 267
EVF_CKV1 268
EVF_CKV2 269
EVF_ENB 270
EVF_XENB 271
EVF_STH 272
EVF_XSTH 273
EVF_CKH1 274
EVF_CKH2 275
EVF_DSG 276
EVF_XDSG 277
R924 0
R925 0
C910 0.1[KB]
C905 1[KB]
C915 1[KB]
R919 PT
R921 56
R920 0
R922 PT
TO M V
189 LYCIO7
188 LYCIO6
187 LYCIO5
186 LYCIO4
185 LYCIO3
184 LYCIO2
183 LYCIO1
182 LYCIO0
181 CLK27C
EVF_3V
EVF_1.8V
EVF_5V
L902 10U
L903 10U
L901 10U
L904 PT
IC901
C1AB00001842
(EVF SIGNAL PROCESS)
DGND1 RESET STV XSTV CKV XCKV ENB XENB STH XSTH VDD1 CKH1 CKH2 PCG XPCG DGND1
49 DGND3
50 DATA7
51 DATA6
52 DATA5
53 DATA4
54 DATA3
55 DATA2
56 VDD3(1.8V)
57 DATA1
58 DATA0
59 CLKIN
60 VDD1(2.85V)
61 SCLK
62 SDATA
63 DGND1
64 SCS
BLCONT 32
VDD1 31
AGND1 30
RO 29
GO 28
BO 27
VREFL 26
VREFH 25
VCC1 24
AGND1 23
PCD 22
COMO 21
VCC1 20
COMH 19
COML 18
AGND1 17
VDD2 FADJ R VCNT DGND2 PO VDD1 TGCLKSEL0 TGCLKSEL1 TEST0 TEST1 TEST2 TEST3 DGND1 UCONSEL CLK27SEL
R927 100
R928 100
R926 100
C920 PT
C921 PT
C922 PT
C919 2R2[KB]
EVF_R 278
EVF_G 279
EVF_B 280
EVF_DSD 281
EVF_COM 282
C916 2R2[KB]
C917 2R2[KB]
C918 PT
R917 PT
R918 PT
R902 0
R905 PT
R910 PT
C903 100/6.3V
C904 PT
C906 PT
C907 PT
R911 0
C911 PT[KB]
C912 PT[KB]
C913 PT[KB]
R912 PT
R913 PT
C914 PT[KB]
R914 0
R915 PT
R916 PT

IC901 IC- DETAIL BLOCK DIAGRAM


VIDEO SIGNAL
GND RESET
VCC
GND
GND
EVF DATA7
EVF DATA6
EVF DATA5
EVF DATA4
EVF DATA3
EVF DATA2
VCC
EVF DATA1
EVF DATA0
VCC
STV XSTV CKV1 CKV2 ENB XENB STH XSTH CKH1 CKH2 DSG XDSG
EVF LCD PANEL DRIVE CONTROL
VCO
PLL
RGB DECODE
OSD MIX
D/A CONVERTER
AMP
YUV /SYNC /OSD DECODE
1/2
D/A CONVERTER
ANALOG SW
SERIAL I/F
MICRO-CONTROLLER
VCC
GND
VCC
GND
VCC
GND
VCC
VCC

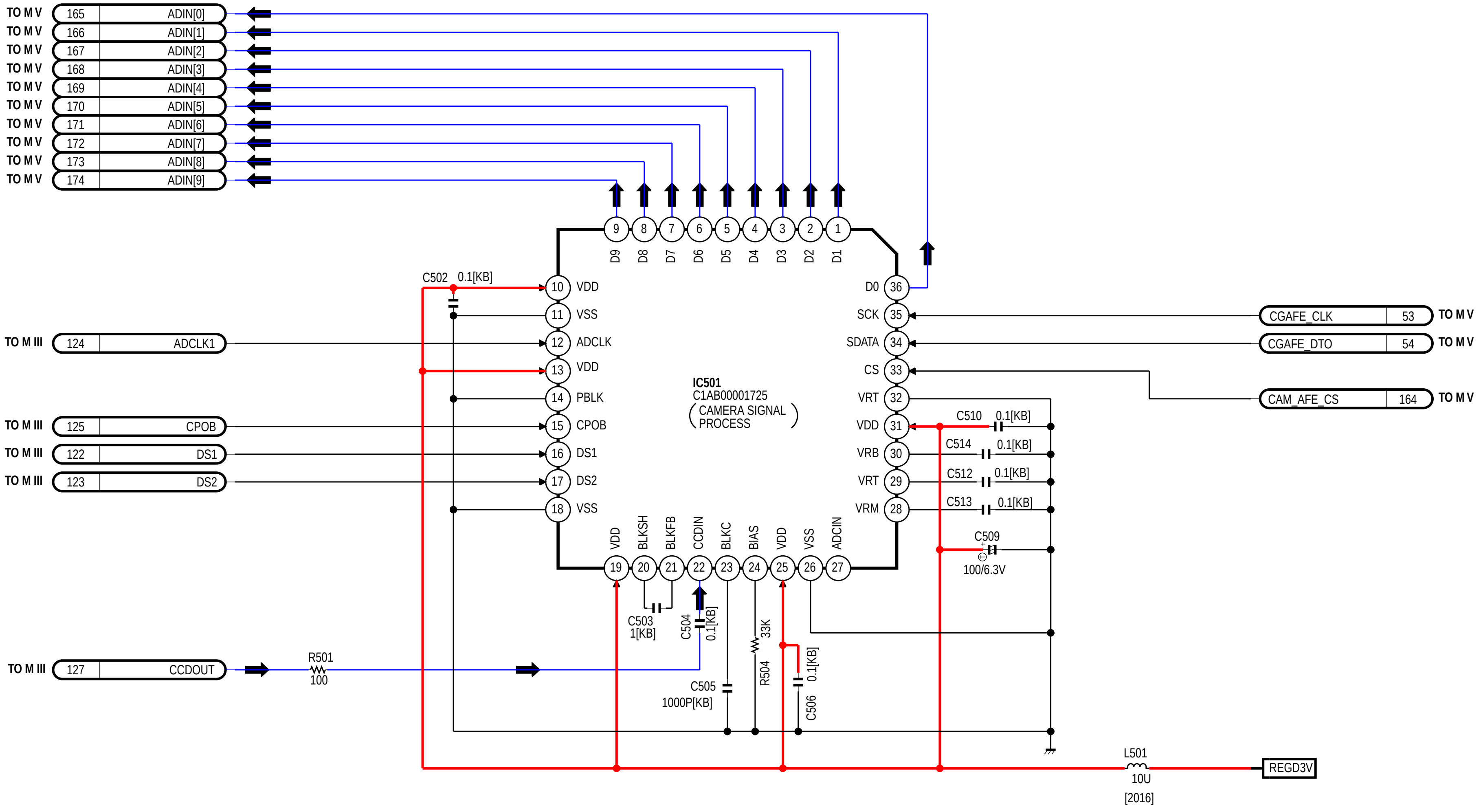
LINK TO VOLTAGE CHART

MAIN XII SCHEMATIC DIAGRAM

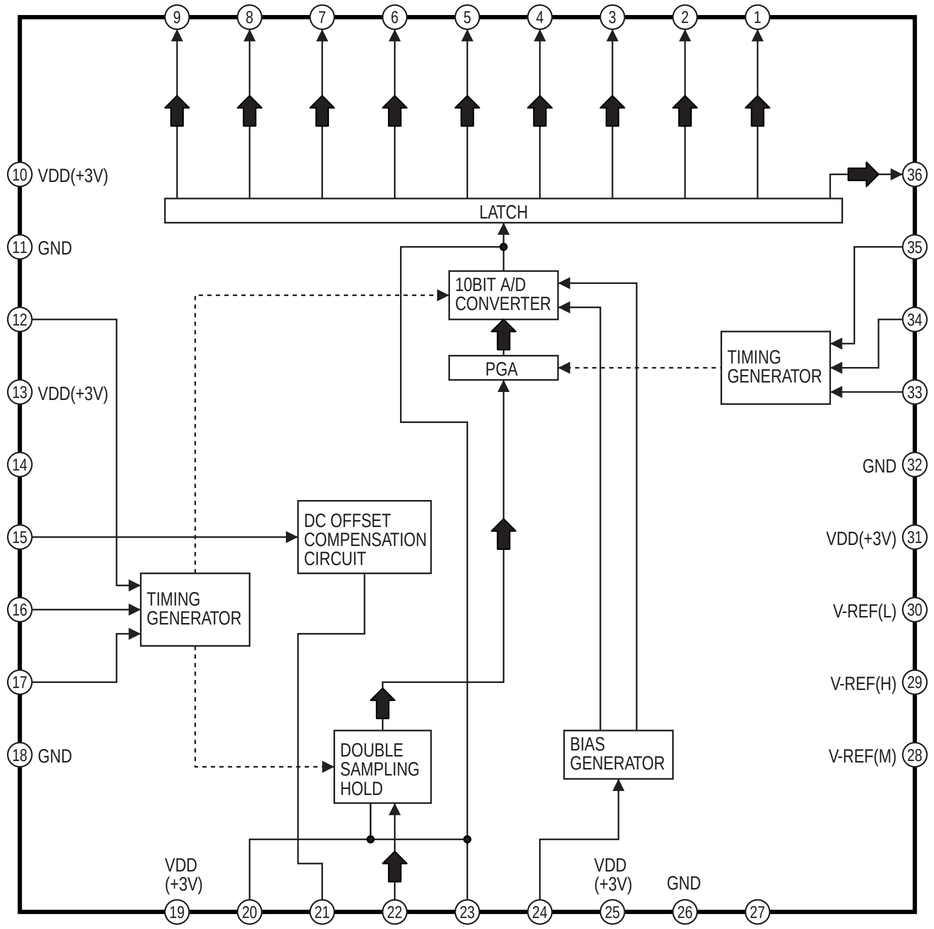
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


TO M V 165 ADIN[0]
TO M V 166 ADIN[1]
TO M V 167 ADIN[2]
TO M V 168 ADIN[3]
TO M V 169 ADIN[4]
TO M V 170 ADIN[5]
TO M V 171 ADIN[6]
TO M V 172 ADIN[7]
TO M V 173 ADIN[8]
TO M V 174 ADIN[9]
TO M III 124 ADCLK1
TO M III 125 CPOB
TO M III 122 DS1
TO M III 123 DS2
TO M III 127 CCDOUT
R501 100
C502 0.1[KB]
VDD
VSS
ADCLK
VDD
PBLK
CPOB
DS1
DS2
VSS
D9 D8 D7 D6 D5 D4 D3 D2 D1
D0
SCK
SDATA
CS
VRT
VDD
VRB
VRT
VRM
VDD BLKSH BLKFB CCDIN BLKC BIAS VDD VSS ADCIN
IC501
C1AB00001725
CAMERA SIGNAL PROCESS
C510 0.1[KB]
C514 0.1[KB]
C512 0.1[KB]
C513 0.1[KB]
C509 100/6.3V
C503 1[KB]
C504 0.1[KB]
C505 1000P[KB]
R504 33K
C506 0.1[KB]
L501 10U [2016]
REGD3V
CGAFE_CLK 53 TO M V
CGAFE_DTO 54 TO M V
CAM_AFE_CS 164 TO M V

IC501 IC- DETAIL BLOCK DIAGRAM


VDD(+3V)
GND
VDD(+3V)
GND
LATCH
10BIT A/D CONVERTER
PGA
TIMING GENERATOR
DC OFFSET COMPENSATION CIRCUIT
TIMING GENERATOR
DOUBLE SAMPLING HOLD
BIAS GENERATOR
GND
VDD(+3V)
V-REF(L)
V-REF(H)
V-REF(M)
VDD (+3V)
VDD (+3V)
GND

LINK TO VOLTAGE CHART

LCD SCHEMATIC DIAGRAM

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be sure to use the part number listed in the parts list.
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NOTE:
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NOTE:
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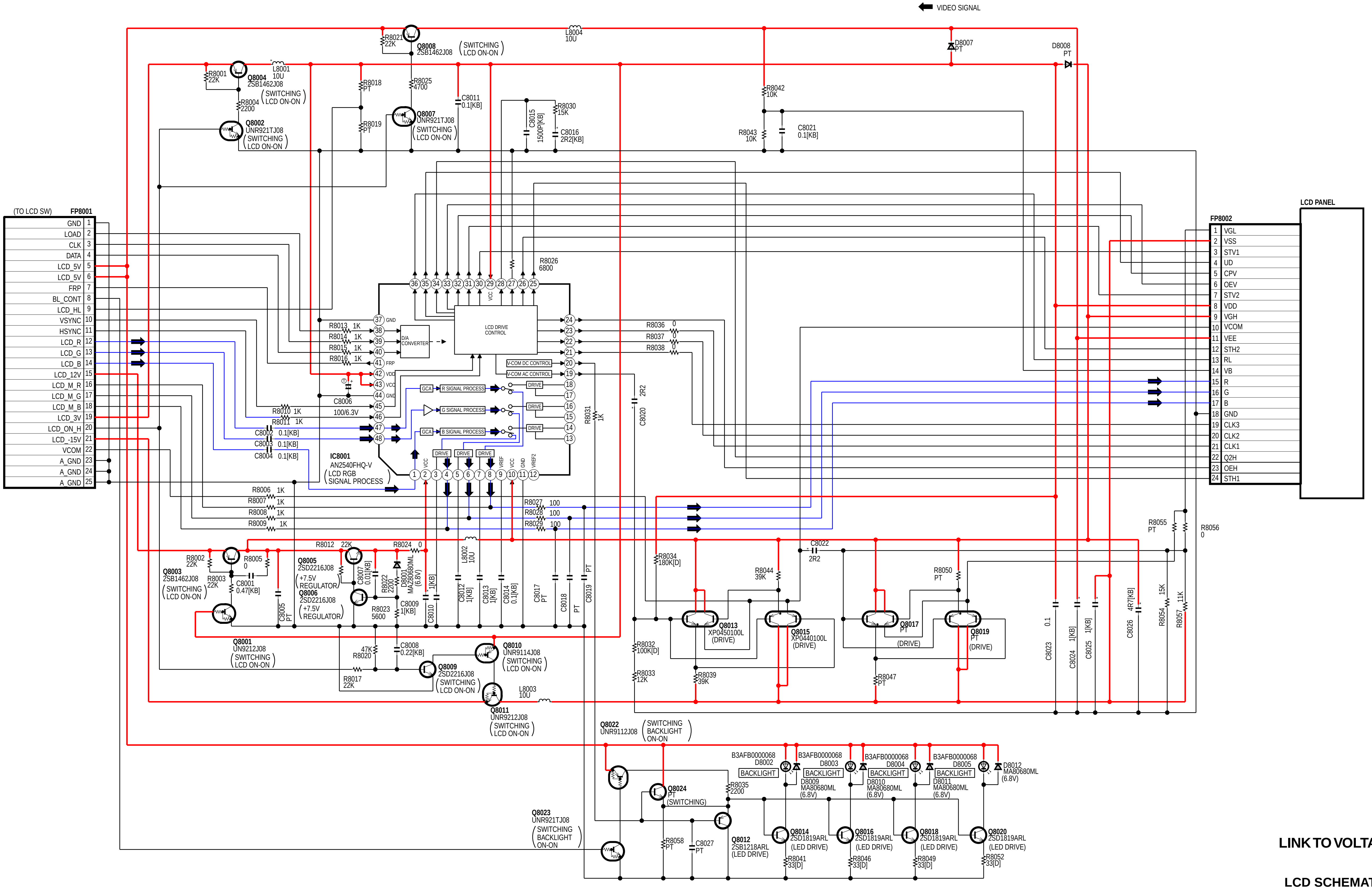
REFER TO BEGINNING OF SCHEMATIC SECTION.



VIDEO SIGNAL
(TO LCD SW)
FP8001
GND 1
LOAD 2
CLK 3
DATA 4
LCD_5V 5
LCD_5V 6
FRP 7
BL_CONT 8
LCD_HL 9
VSYNC 10
HSYNC 11
LCD_R 12
LCD_G 13
LCD_B 14
LCD_12V 15
LCD_M_R 16
LCD_M_G 17
LCD_M_B 18
LCD_3V 19
LCD_ON_H 20
LCD_-15V 21
VCOM 22
A_GND 23
A_GND 24
A_GND 25
LCD PANEL
FP8002
1 VGL
2 VSS
3 STV1
4 UD
5 CPV
6 OEV
7 STV2
8 VDD
9 VGH
10 VCOM
11 VEE
12 STH2
13 RL
14 VB
15 R
16 G
17 B
18 GND
19 CLK3
20 CLK2
21 CLK1
22 Q2H
23 OEH
24 STH1
R8021 22K
Q8008 2SB1462J08
(SWITCHING LCD ON-ON)
L8004 10U
D8007 PT
D8008 PT
R8001 22K
Q8004 2SB1462J08
L8001 10U
(SWITCHING LCD ON-ON)
R8004 2200
Q8002 UNR921TJ08
(SWITCHING LCD ON-ON)
R8018 PT
R8025 4700
R8019 PT
Q8007 UNR921TJ08
(SWITCHING LCD ON-ON)
C8011 0.1[KB]
C8015 1500P[KB]
R8030 15K
C8016 2R2[KB]
R8042 10K
R8043 10K
C8021 0.1[KB]
R8026 6800
IC8001
AN2540FHQ-V
(LCD RGB SIGNAL PROCESS)
LCD DRIVE CONTROL
D/A CONVERTER
GND
VDD
VCC
FRP
V-COM DC CONTROL
V-COM AC CONTROL
GCA
R SIGNAL PROCESS
G SIGNAL PROCESS
B SIGNAL PROCESS
DRIVE
VREF
VREF2
R8013 1K
R8014 1K
R8015 1K
R8016 1K
C8006 100/6.3V
R8010 1K
R8011 1K
C8002 0.1[KB]
C8003 0.1[KB]
C8004 0.1[KB]
R8036 0
R8037 0
R8038 0
R8031 1K
C8020 2R2
R8006 1K
R8007 1K
R8008 1K
R8009 1K
R8027 100
R8028 100
R8029 100
R8012 22K
R8024 0
R8002 22K
R8005 0
Q8003 2SB1462J08
(SWITCHING LCD ON-ON)
R8003 22K
C8001 0.47[KB]
C8005 PT
Q8005 2SD2216J08
(+7.5V REGULATOR)
Q8006 2SD2216J08
(+7.5V REGULATOR)
C8007 0.01[KB]
R8022 2200
D8001 MA8068ML (6.8V)
C8009 1[KB]
R8023 5600
C8010 1[KB]
L8002 10U
C8012 1[KB]
C8013 1[KB]
C8014 0.1[KB]
C8017 PT
C8018 PT
C8019 PT
Q8001 UN9212J08
(SWITCHING LCD ON-ON)
R8020 47K
C8008 0.22[KB]
R8017 22K
Q8009 2SD2216J08
(SWITCHING LCD ON-ON)
Q8010 UNR9114J08
(SWITCHING LCD ON-ON)
Q8011 UNR9212J08
(SWITCHING LCD ON-ON)
L8003 10U
R8034 180K[D]
C8022 2R2
R8044 39K
R8050 PT
Q8013 XP04501OOL (DRIVE)
Q8015 XP04401OOL (DRIVE)
Q8017 PT (DRIVE)
Q8019 PT (DRIVE)
R8032 100K[D]
R8033 12K
R8039 39K
R8047 PT
R8055 PT
R8056 0
C8023 0.1
C8024 1[KB]
C8025 1[KB]
C8026 4R7[KB]
R8054 15K
R8057 11K
Q8022 UNR9112J08
(SWITCHING BACKLIGHT ON-ON)
B3AFB0000068 D8002 BACKLIGHT
B3AFB0000068 D8003 BACKLIGHT
B3AFB0000068 D8004 BACKLIGHT
B3AFB0000068 D8005 BACKLIGHT
D8009 MA8068OML (6.8V)
D8010 MA8068OML (6.8V)
D8011 MA8068OML (6.8V)
D8012 MA8068OML (6.8V)
Q8024 PT (SWITCHING)
R8035 2200
Q8023 UNR921TJ08
(SWITCHING BACKLIGHT ON-ON)
R8058 PT
C8027 PT
Q8012 2SB1218ARL (LED DRIVE)
Q8014 2SD1819ARL (LED DRIVE)
Q8016 2SD1819ARL (LED DRIVE)
Q8018 2SD1819ARL (LED DRIVE)
Q8020 2SD1819ARL (LED DRIVE)
R8041 33[D]
R8046 33[D]
R8049 33[D]
R8052 33[D]

LINK TO VOLTAGE CHART

LSJB8267
LCD SCHEMATIC DIAGRAM
PV-GS9PL/PV-GS12PL/PV-GS15PL

FRONT SCHEMATIC DIAGRAM

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NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
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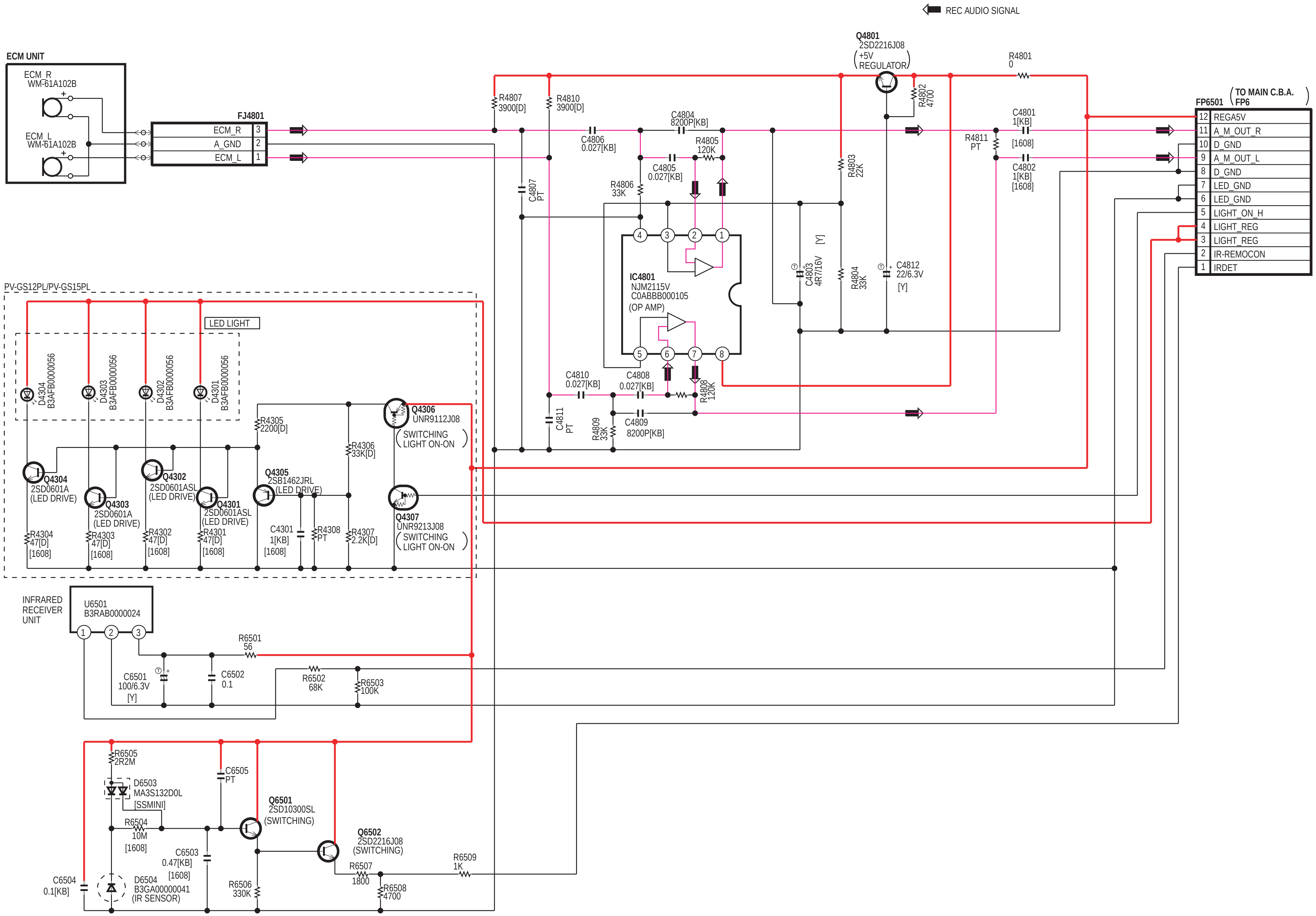

REC AUDIO SIGNAL
ECM UNIT
ECM_R
WM-61A102B
ECM_L
WM-61A102B
FJ4801
ECM_R 3
A_GND 2
ECM_L 1
R4807 3900[D]
R4810 3900[D]
C4806 0.027[KB]
C4807 PT
C4804 8200P[KB]
C4805 0.027[KB]
R4805 120K
R4806 33K
IC4801
NJM2115V
C0ABBB000105
(OP AMP)
C4810 0.027[KB]
C4808 0.027[KB]
C4811 PT
R4809 33K
C4809 8200P[KB]
R4808 120K
Q4801
2SD2216J08
(+5V REGULATOR)
R4802 4700
R4803 22K
R4804 33K
C4803 4R7/16V [Y]
C4812 22/6.3V [Y]
R4801 0
R4811 PT
C4801 1[KB] [1608]
C4802 1[KB] [1608]
FP6501
(TO MAIN C.B.A. FP6)
12 REGA5V
11 A_M_OUT_R
10 D_GND
9 A_M_OUT_L
8 D_GND
7 LED_GND
6 LED_GND
5 LIGHT_ON_H
4 LIGHT_REG
3 LIGHT_REG
2 IR-REMOCON
1 IRDET
PV-GS12PL/PV-GS15PL
LED LIGHT
D4304 B3AFB0000056
D4303 B3AFB0000056
D4302 B3AFB0000056
D4301 B3AFB0000056
Q4304 2SD0601A (LED DRIVE)
Q4303 2SD0601A (LED DRIVE)
Q4302 2SD0601ASL (LED DRIVE)
Q4301 2SD0601ASL (LED DRIVE)
R4304 47[D] [1608]
R4303 47[D] [1608]
R4302 47[D] [1608]
R4301 47[D] [1608]
R4305 2200[D]
Q4305 2SB1462JRL (LED DRIVE)
C4301 1[KB] [1608]
R4308 PT
R4306 33K[D]
R4307 2.2K[D]
Q4306 UNR9112J08 (SWITCHING LIGHT ON-ON)
Q4307 UNR9213J08 (SWITCHING LIGHT ON-ON)
INFRARED RECEIVER UNIT
U6501 B3RAB0000024
R6501 56
C6501 100/6.3V [Y]
C6502 0.1
R6502 68K
R6503 100K
R6505 2R2M
C6505 PT
D6503 MA3S132D0L [SSMINI]
R6504 10M [1608]
C6503 0.47[KB] [1608]
C6504 0.1[KB]
D6504 B3GA00000041 (IR SENSOR)
R6506 330K
Q6501 2SD10300SL (SWITCHING)
Q6502 2SD2216J08 (SWITCHING)
R6507 1800
R6508 4700
R6509 1K